

The big cities shrink

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BUSINESS WEEK

A MCGRAW-HILL PUBLICATION

FIFTY CENTS

JUNE 18, 1960

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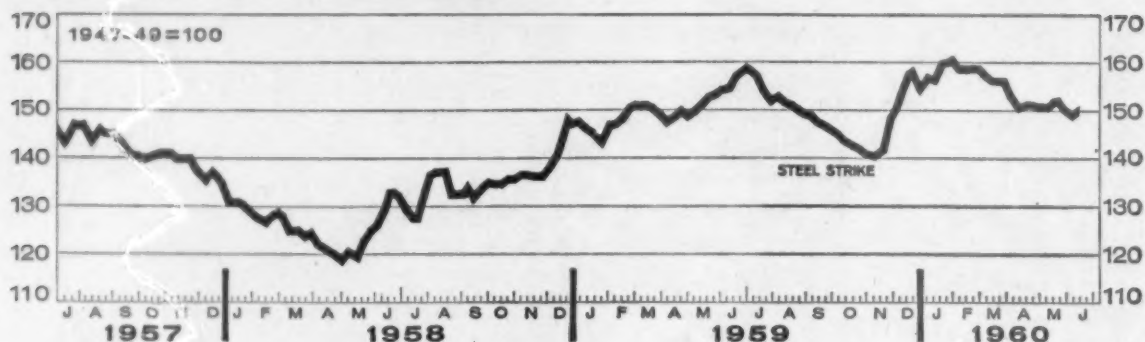
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FIGURES of the WEEK



BUSINESS WEEK INDEX (chart)

1953-55 Average	Year Ago	Month Ago	Week Ago	\$ Latest Week
133.3	157.6	152.6	150.0r	150.9*

PRODUCTION

Steel ingot (thous. of tons).....	2,032	2,620	2,031	1,756r	1,775
Automobiles.....	125,553	127,029	145,917	115,068r	141,838
Engineering cons. awards (Eng. News-Rec. 4-wk. daily av. in thous.).....	\$52,412	\$89,752	\$79,475	\$87,703	\$91,407
Electric power (millions of kilowatt-hours).....	10,819	13,503	13,350	13,134	13,766
Crude oil and condensate (daily av., thous. of bbl.).....	6,536	7,010	6,794	6,781	6,772
Bituminous coal (daily av., thous. of tons).....	1,455	1,419	1,379	1,407r	1,456
Paperboard (tons).....	247,488	330,025	311,066	289,565	327,206

TRADE

Carloadings: mfrs., miscellaneous and l.c.l. (daily av., thous. of cars).....	70	64	61	60	58
Carloadings: all other (daily av., thous. of cars).....	47	50	46	47	47
Department store sales index (1947-49 = 100, not seasonally adjusted).....	121	150	156	139	131
Business failures (D'n & Bradstreet, number).....	198	295	304	274	283

PRICES

Industrial raw materials, daily index (BLS, 1947-49 = 100).....	89.2	92.3	93.3	92.4	91.9
Foodstuffs, daily index (BLS, 1947-49 = 100).....	90.5	82.0	76.9	77.1	77.1
Print cloth (spot and nearby, yd.).....	19.8¢	19.5¢	20.8¢	21.1¢	20.2¢
Finished steel, index (BLS, 1947-49 = 100).....	143.9	186.7	186.8	186.7r	186.7
Scrap steel composite (iron age, ton).....	\$36.10	\$38.17	\$33.17	\$31.50	\$31.50
Copper (electrolytic, delivered price, E&MJ, lb.).....	32.39¢	31.505¢	33.000¢	33.000¢	33.000¢
Aluminum, primary pig (U. S. del., E&MJ, lb.).....	20.6¢	24.7¢	26.0¢	26.0¢	26.0¢
Aluminum, secondary alloy #380, 1% zinc (U. S. del., E&MJ, lb.).....	††	22.88¢	25.01¢	24.36¢	24.07¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.34	\$1.99	\$2.03	\$1.96	\$1.98
Cotton, daily price (middling, 1 in., 14 designated markets, lb.).....	34.57¢	34.54¢	32.17¢	32.20¢	32.25¢
Wool tops (Boston, lb.).....	\$1.96	\$1.82	\$1.73	\$1.67	\$1.67

FINANCE

500 stocks composite, price index (S&P's, 1941-43 = 10).....	31.64	57.04	55.26	56.91	57.89
Medium grade corporate bond yield (Baa issues, Moody's).....	3.59%	5.03%	5.28%	5.25%	5.25%
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate).....	2-2½%	3%	4¼%	4¼%	4%

BANKING (Millions of Dollars)

Demand deposits adjusted, reporting member banks.....	††	61,598	58,695	58,185r	58,510
Total loans and investments, reporting member banks.....	††	102,568	102,685	102,925r	102,636
Commercial, industrial, and agricultural loans, reporting member banks....	††	33,044	31,961	31,170r	31,920
U. S. gov't guaranteed obligations held, reporting member banks.....	††	30,994	25,703	25,752	25,640
Total federal reserve credit outstanding.....	26,424	27,736	27,371	27,427	27,575

MONTHLY FIGURES OF THE WEEK

	1953-58 Average	Year Ago	Month Ago	Latest Month
Employment (in millions).....May.....	62.2	66.0	66.2	67.2
Unemployment (in millions).....May.....	2.5	3.4	3.7	3.5
Average weekly earnings in manufacturing.....May.....	\$73.36	\$90.32	\$89.83	\$90.74
Retail sales (seasonally adjusted, in billions).....May.....	\$14.5	\$18.2	\$18.9	\$18.4
Bank debits (in billions).....May.....	\$158.1	\$216.0	\$226.0	\$233.0

* Preliminary, week ended June 11, 1960.

†† Not available.

* Revised.

† Date for 'Latest Week' on each series on request.

THE PICTURES—Cover—Edith Miller; 27—WW; 28-29—UPI; 32—Herb Kratochvil; 34—Ed Nano; 35—Herb Kratochvil; 74—Pictorial Parade; 84 (top left) Pete Weaver; 85—Edith Miller; 86—(left) Edith Miller, (right) Marvin Newman; 91, 93, 94—Edith Miller; 98—Herb Kratochvil; 129—George I. Ames; 140-141—Living for Young Homemakers; 145-147 (top left) UPI, (all others) Herb Kratochvil; 149, 150—Herb Kratochvil; 170-171—Nixon (Pictorial Parade), Burns (Herb Kratochvil), Wallis (Joan Sydlow), Elliot (Harvard University); Savinier (Joan Sydlow), Kennedy (UPI), Cox (Harvard), Galbraith (WW), Schlesinger (Bob Isar), Rostow (George Woodruff), Millikan and Wood (MIT), Haine (Harvard), Bowles (WW), Johnson (UPI), Siegel (Noel Clarke), Fortas and Acheson (UPI), Webb (Univ. of Texas), Cohen (UPI), Weiss (Simpson Thacher and Bartlett), Janeway (Janeway Publishing Co.), Cook (WW), Symington (Pictorial Parade), Keyserling (UPI), Rockefeller (UPI), Hughes (WW), Kissinger (Harvard), Harrison (Harrison and Abramovitz), Lockwood (Harris and Ewing), Stevenson (WW); 185—Freeport Sulphur Co.; 188-189—Wallach-Cox Corp.; 194—Lefebvre Corp.



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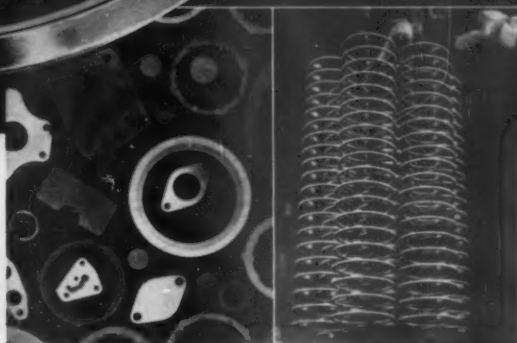
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BUSINESS WEEK • June 18, 1960

READERS REPORT

Stockholders' Right

Dear Sir:

It was a source of genuine pleasure to read the article, More Voices Raised at Annual Meetings [BW—May28'60,p165].

I wholeheartedly disagree with the writer's statement on page 168 of the above stated issue wherein he said: "So far, nobody has figured out a way to curb the lunatic fringe without squelching the people who really have something to say." I believe that every stockholder has a right to express his opinions about management on the one day set aside yearly for stockholders to be heard. They are the owners of the business and they have every right to criticize management.

The average shareholder does not have a background of public speaking and, as a rule, it hampers him to get up before a crowd and criticize the management. Therefore, it is a healthy situation to have the "Professional" stockholders, as your writer calls them, to speak up for those who are not able to deliver a public speech. I think that if we small stockholders had more people like Lewis and John Gilbert and Mrs. Soss and others that are crusaders for the rights of minority stockholders, that we would have better corporate democracy and better management as a result. . . .

RAYMOND WAGNER

E. CHICAGO, IND.

Divide Meeting

Dear Sir:

I enjoyed your article on Annual Meetings. Would it not be feasible to divide the question and answer period into two parts—(1) written questions of general interest to most stockholders, (2) written and oral questions of limited interest to the Gilberts, Mrs. Soss, and other "pros." In that way they could be sure that the first part of the meeting would be orderly and informative, and they would still preserve the rights of all stockholders.

E. J. KINGSBURY, JR.

KINGSBURY MACHINE TOOL CORP.
KEENE, N. H.

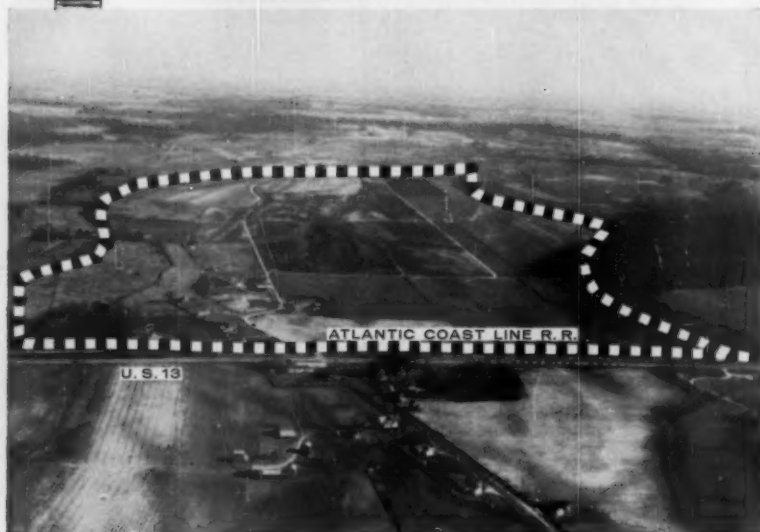
No Compensation

Dear Sir:

In the Business Abroad section [BW—May28'60,p143], as part of your discussion of American properties in Cuba, this . . . appeared: "INRA also purchased a hene-



THE SOUTHEAST DOES LOOK GOOD!



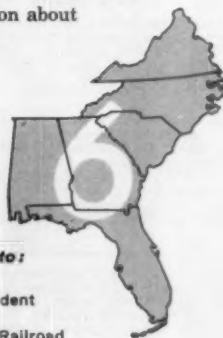
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quen plantation from International Harvester Co. for \$3-million."

The statement is incorrect.

The henequen plantation referred to was occupied by the Cuban government on Dec. 21, 1959, and has been controlled by the government since that time, as was reported in the company's annual report for 1959. No compensation has ever been agreed upon or paid. . . .

JOHN W. VANCE

DIRECTOR OF PUBLIC RELATIONS
INTERNATIONAL HARVESTER CO.
CHICAGO, ILL.

"Buzz Words"

Dear Sir:

I enjoyed your article entitled *Old Company Makes Itself Over* [BW—May 7'60, p79]. However, there is one point with which I am in disagreement. You say that the type of casual management shown by Garlock prior to their reorganization would have been "horrifying" to students of the Harvard Business School. That is not necessarily true.

Rather, I think I am more horrified by the chilly and somewhat indiscriminate use of the "buzz words" that are peppered throughout your article. Scientific Management, streamlined organizations along functional lines, charts, organizational manuals, and position descriptions are not the end; rather, they are tools that may be used to achieve a goal.

. . . I doubt very much that the return on investment will increase until the foremen "begin to come around," among other things. This is succinctly put under the heading of Human Lag. We are taught that you cannot legislate human lag into human endeavor.

It seems that the fear of the dissenting voices in Garlock about the destruction of customer-mindedness and the loyalty and initiative of lower level managers is very real and should be considered. . . .

Therefore, while chaos is certainly undesirable, a cold-blooded organization chart without regard to human sentiments can be just as bad. One is as horrifying as the other, and is usually reflected in a P&L statement. . . .

JOHN HIRSCH

HARVARD BUSINESS SCHOOL
BOSTON, MASS.

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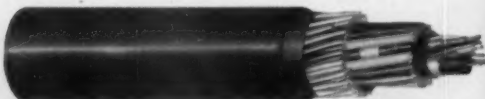


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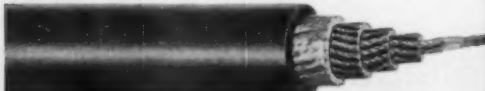
Umbilical Breakaway Cable. Anaconda designed and manufactured this 99-conductor composite breakaway cable for the "Corporal"—one of America's first missiles.



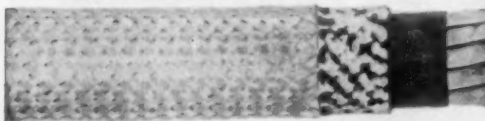
Portable Power Cable. Designed for maximum durability and meets flame tests of the Bureau of Mines. Available with or without grounding wires, round or flat constructions.



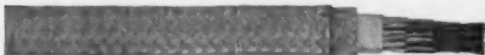
Ground Support Cable (MIL-C-13777). Power and control cables for interconnecting units of complex weapons systems.



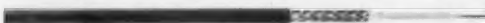
Launch Control Cable. Seventy-conductor, flexible copper strand, polyethylene insulation, tinned-copper braid shield, nylon jacket, planetary stranded, oil-, gas-, flame-, moisture-resistant over-all jacket.



Polaris Cable. Digital transmission and synchro resolver cable developed for the firing system of Polaris submarines. Withstands open-end hydrostatic pressure of 300 psig.



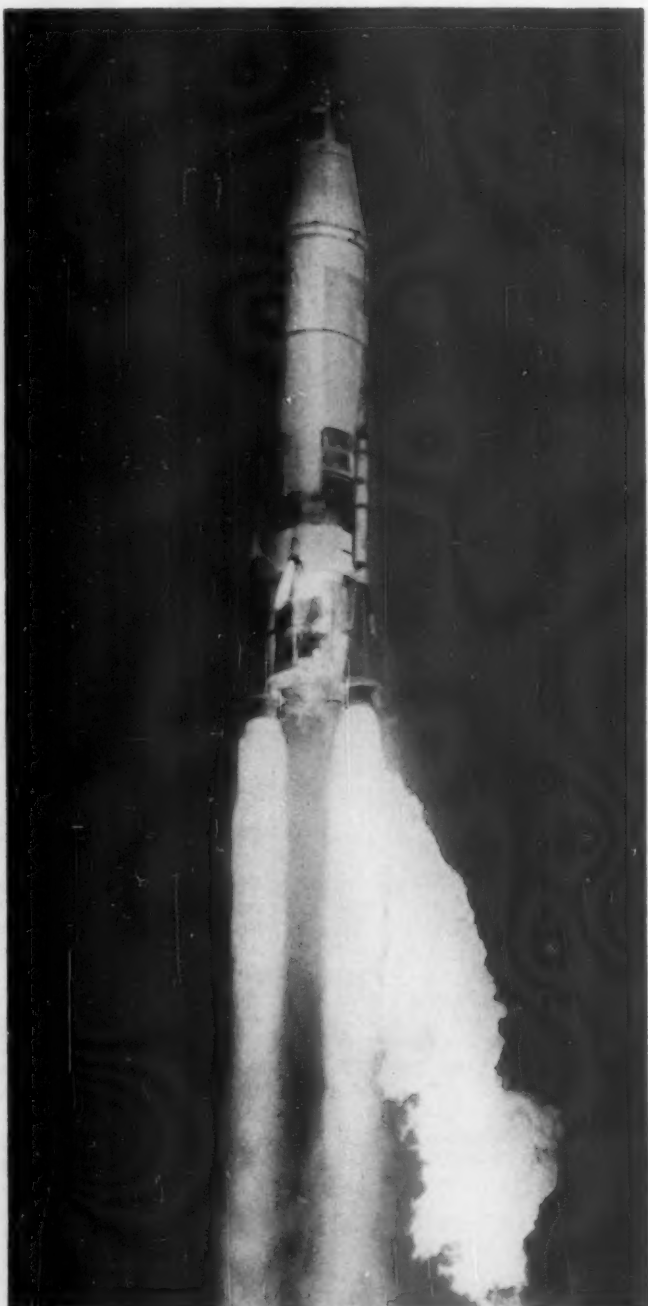
Nuclear Reactor Cable. Developed by Anaconda for U.S. Navy. In addition to its absolute watertight features withstands high-temperature operations in the order of 500 F.



Instrument Probe Cable. Miniature coaxial construction. No. 40 Awg Evanohm resistance conductor, cellular polyethylene insulation, tinned-copper braid shield, PVC jacket. Overall diameter 0.100".



Radiation Resistant Satellite Cable. Four-conductor miniature construction. Tinned-copper conductors, color-coded HYRAD (irradiated polyolefin) insulation, flame-retardant, 90% copper braid shield, irradiated HYRAD jacket overall.



THE COMPLEX ELECTRICAL NERVE SYSTEM of many of America's prime missiles, such as ATLAS, TITAN, POLARIS, is composed of many specially designed cables built by Anaconda to strictest military specifications. This proven experience is ready to solve your most critical cable problems.

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For more information about any one of the product categories mentioned on these pages, write: The Anaconda Wire & Cable Company, 25 Broadway, New York 4, New York.

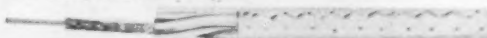
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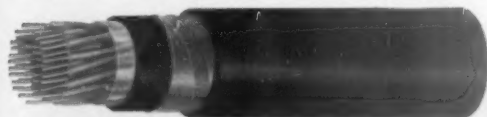
Computer Cable. Multiconductor construction for interconnecting units. Conductors to MIL-W-16878, extruded nylon jacket over primary PVC insulation, tinned-copper braid shield, color-coded PVC jacket over each pair, overall PVC jacket.



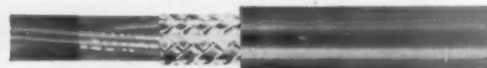
260C High Temperature Missile Cable. Silver-plated copper conductors, fused-wrapped Teflon insulation, fluor-glass tape abrasion barrier, Teflon impregnated fiberglass inner braid, silver-plated copper braid shield 90% coverage, Teflon impregnated fiberglass outer braid, conductors cabled, Teflon impregnated fiberglass braid overall.



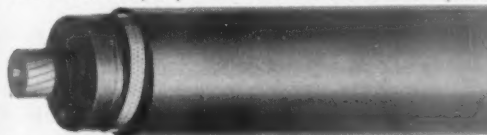
Quality Military Hook-up Wire. Single and multiconductor, shielded or nonshielded, PVC, Polyethylene, nylon, Teflon, HYRAD insulations, with plastic or braided jackets. Fully water-tested.



Communication Cable — High Reliability. Direct burial telephone cable specially designed for missile complexes. High-molecular-weight polyethylene insulation and jacket, cadmium bronze tapes for shielding and mechanical protection.



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Magnet Wire. Round, square and rectangular magnet wire in any single or practical combinations of film or fibrous coverings. Epoxy, enamel, Formvar, nylon, cotton, paper, glass-fiber yarn. Solderable Analac. 250C Silicone-Teflon. 500C Silotex-N.

I am interested in additional information on the following—

- ☐ Magnet Wire ☐ Power Cable ☐ Control Cable ☐ Hook-up Wire
☐ High Frequency Cable ☐ Communication Cable ☐ Missile Cable
☐ Specialty Electronic Wire and Cable BW

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HOW MUCH IS A RAISE REALLY WORTH?



Until recently, the problem of keeping key men was solved by a salary increase. Simple as that.

But today, a high-income executive must share a formidable part of his raise with the tax collector. His *net* salary is a seriously diluted incentive. And this is why an Executive Compensation Plan funded by The Travelers is worth careful consideration by management.

Without spending any more than a raise would cost you, The Travelers Executive Compensation Plan can provide your company with:

1. A guaranteed reserve to cover the cost of the deferred payments, *plus*—
2. Substantial tax-free funds to offset losses and to meet such increased costs as might arise from

the death of a key employee.

Because of tax bracket differentials, you can provide your high-income executives with greater after-tax benefits by deferring part of their salary, than they could provide for themselves. In view of high-taxed raises, payments of much greater value are made to your key men on retirement, disability, or in the event of death, to their family.

A new Treasury Department ruling (February, 1960) has clarified the significant tax benefits of the Plan and simplified its mechanics. So now is the time to see how The Travelers Executive Compensation Plan will work for your company—and your key men. Your Travelers Agent or broker is waiting for your call.

THE TRAVELERS

Insurance Companies HARTFORD 15, CONN.



- 1** Polyethylene is chosen for squeeze bottles because it:
- (a) travels safely
 - (b) comes in a variety of colors
 - (c) resists chemicals



- 2** In this package that displays a watch in water, polyethylene film:
- (a) lines the package
 - (b) coats the watch
 - (c) forms a leakproof seal

What's your score on "packaging with polyethylene"?

(Exciting uses hold profitable ideas)



- 3** Applying protective polyethylene film to this 2000 gal. tank takes:
- (a) 30 minutes
 - (b) 30 seconds
 - (c) 15 minutes



- 4** This tough polyethylene wrapper opens easily by means of:
- (a) a tear strip
 - (b) a tear string
 - (c) a sticker



- 5** Wrapping bread automatically in polyethylene film:
- (a) reduces rewraps
 - (b) averages 43 loaves/min.
 - (c) keeps bread softer

ANSWERS . . . to an increasing range of packaging needs are found in BAKELITE polyethylene plastics.

1. Check all three. They're just a few reasons why polyethylene squeeze bottles have become so popular.
2. (a) and (c). Inner coating on package adds strength, waterproofing and a tight heat-seal.
3. (b) — Only 30 seconds! Previous materials took 15 minutes.
4. (a) tear strip — which opens the package quickly and neatly.
5. Check (a) and (b). (c) is a standard feature of polyethylene film.

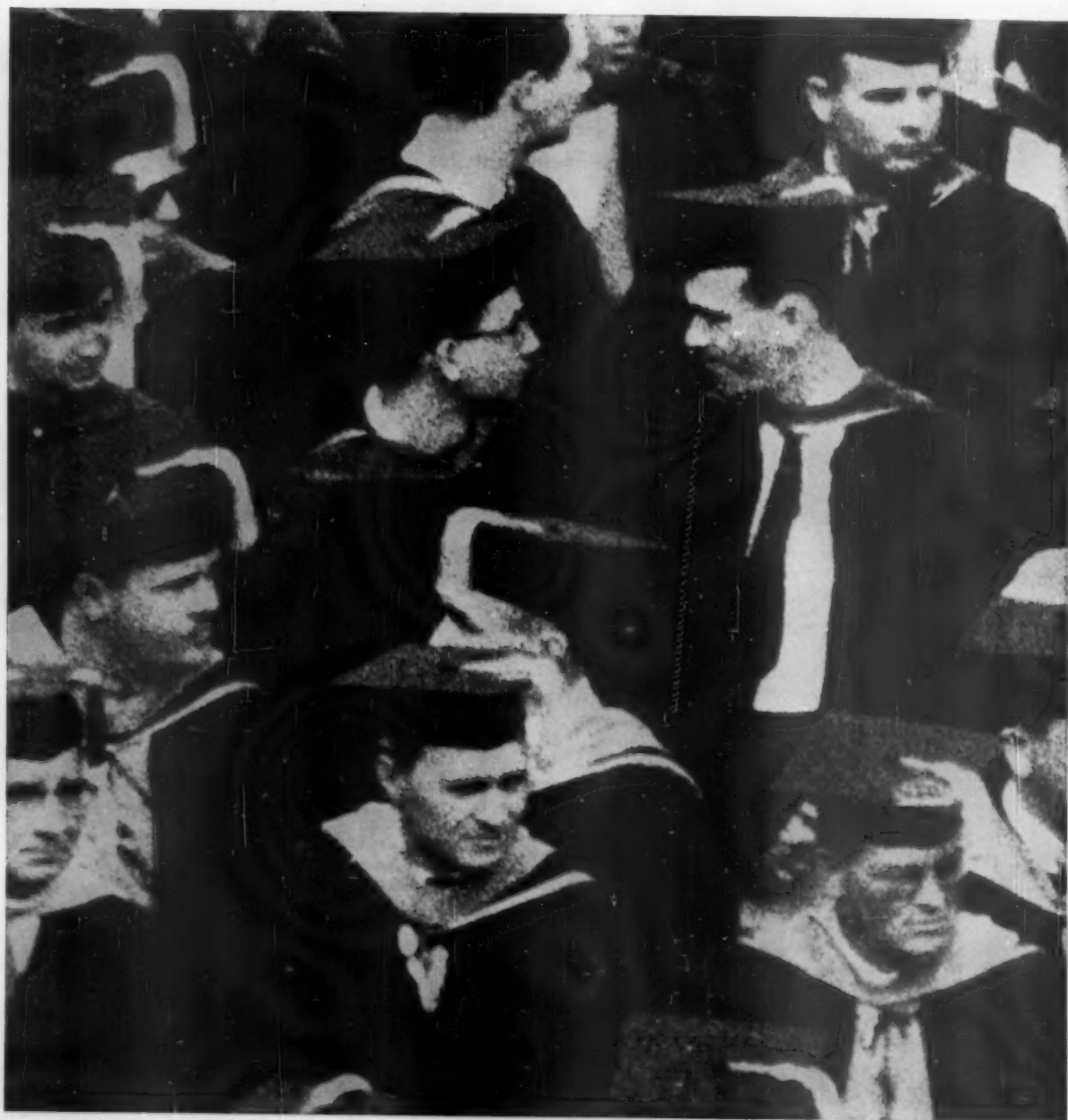
If you have questions—about plastics and their potential for your business—please ask us. We'll be glad to answer on the uses of polyethylenes, epoxies, phenolics, styrenes, and vinyls. Just write or call any of our offices or write Dept. BN-19, Union Carbide Plastics Company, Division of Union Carbide Corporation, 30 East 42nd Street, New York 17, N. Y. In Canada: Union Carbide Canada Limited, Toronto 7.

**UNION
CARBIDE**

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CREATING A NEW WORLD WITH ELECTRONICS

AMERICA IS 608 DEGREES



STRONGER

The Hughes Fellowship Programs were conceived to meet a unique industrial challenge.

Ten years ago, "electronics" was a brand new word in the dictionary. Qualified engineers and scientists in the field were rare.

Yet the potential growth of electronics indicated that thousands of highly trained specialists would be needed to spur advanced research and development. A bold step was needed. Hughes management created the Fellowship Programs to give advanced training to men graduating from the nation's leading colleges. The most efficient way was to help them get Masters and Ph.D. degrees—while simultaneously exposing them to the latest developments in the laboratories.

Today 608 engineers and scientists who have completed this program are holding down key positions in the electronics field.

The basic pattern developed by Hughes (since adopted by other forward-looking companies) provides the Fellow with ample financial aid to carry him in his academic studies. At the same time, he is given the opportunity to work alongside top research scientists in Hughes Laboratories.

Often, the projects he works on are not even covered in the textbooks. In fact a number of advanced courses now given at universities have developed from work done at Hughes.

In 1960, Hughes will award 171 Fellowships—146 awards will be made to aspirants for the Masters, 25 awards to candidates for the Doctorate. These awards are made directly by Hughes and are open to all qualified engineers and scientists.

We are proud of the accomplishments these men are making, and of our role in encouraging the nation's growing progress in science through aid

to education. People with initiative helped create our way of life. Science and the ideal of progress through science will keep it strong and productive.

Electronics is our business—Hughes has thousands of engineers and scientists working on virtually every area where electronics can better serve man. New developments include TV-like picture tubes that "remember" images, super-small semiconductors for advanced computers, ruby masers which amplify signals from space, and communications systems which can handle unusually large amounts of information.



A Hughes Fellow works with "old hands" to gain experience in the latest state of the art.

Creating a new world with ELECTRONICS

HUGHES

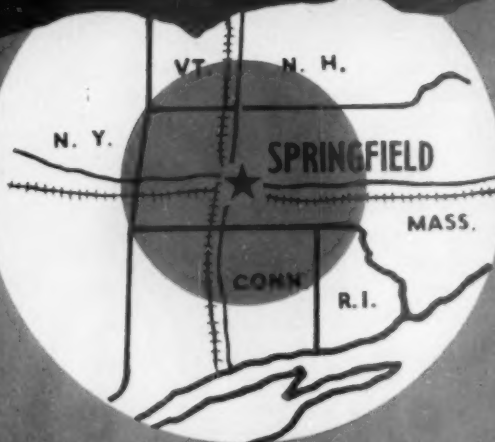
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SPRINGFIELD UNION
SPRINGFIELD DAILY NEWS
SPRINGFIELD SUNDAY REPUBLICAN



How to win local markets—anywhere

Olivetti Machine Tools decided to sell its precision-built machines in the United States. This move set up a problem, for this Italian-based company has to convince prospects that they can get *fast and dependable parts service*.

"The first thing prospects want to know about is the availability of parts," said Mr. Robert A. Blum, U. S. manager of the tool division of world-famous Olivetti. "We tell them we maintain a basic supply of parts in our New York warehouse, and this supply is kept up by a steady flow of shipments from Italy by Emery Air Freight."

"Then they want to know how quickly they can get replacement parts from our American stocks to keep

costly 'down time' in their plants to a minimum. Our answer is: we distribute parts from New York *overnight* to our customers anywhere in the United States by Emery Air Freight. And the fact that they can rely on this fast air freight service clinches the sale for us.

"Emery Air Freight is one of our strongest points in selling prospects and keeping them as customers. And another point, Emery helps us keep inventory costs to a minimum."

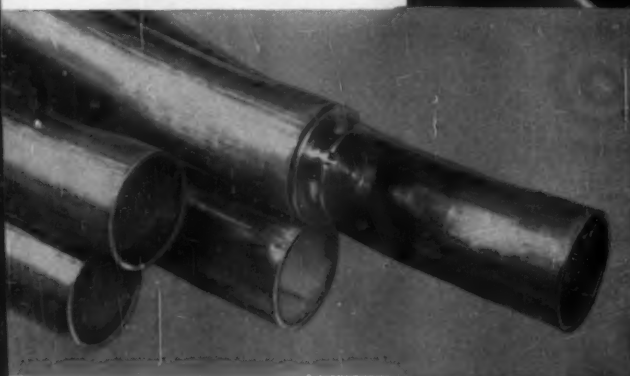
Emery provides the fastest and most dependable air freight service available for nationwide distribution anywhere in the United States and throughout the world. Call your local Emery office for full information.



EMERY AIR FREIGHT

801 Second Avenue, New York 17, N.Y. "EMERY—Worldwide Blue Ribbon Service"

Non-Magnetic and salt-corrosion-resistant Republic ELECTRUNITE® Stainless Steel Tubing, Type 304, 4½" O.D., was used to fabricate corona rings for a powerful East Coast Navy Radio Station. Despite the rather severe bend of the 15- and 20-foot rings, the fabricator reported no trouble whatsoever. The rings were made in three sections. ELECTRUNITE was bent to the correct radius. Three lugs were welded to each section. The ends were flared for the insertion of a plug used at the erection site to assemble the three pieces into a complete ring and suspend it from towers approximately 1,400 feet high. The fabrication was handled by Jetsch & Company, Inc., Buffalo, New York, subcontractors to Lapp Insulator Company, Leroy, New York.



Bend, Flange, Weld, Easy-to-Fabricate ELECTRUNITE STAINLESS STEEL TUBING

ELECTRUNITE Stainless Steel Tubing and Pipe are available in A.I.S.I. chrome-nickel analyses. Sizes range for ¾" O.D. to 5" O.D. Pipe sizes are available from ½" I.P.S. through 2" I.P.S. in ASA schedule 40S; from ¾" I.P.S. through 4" I.P.S. in schedule 10S; and from ½" I.P.S. through 4" I.P.S. in schedule 5S wall thicknesses.

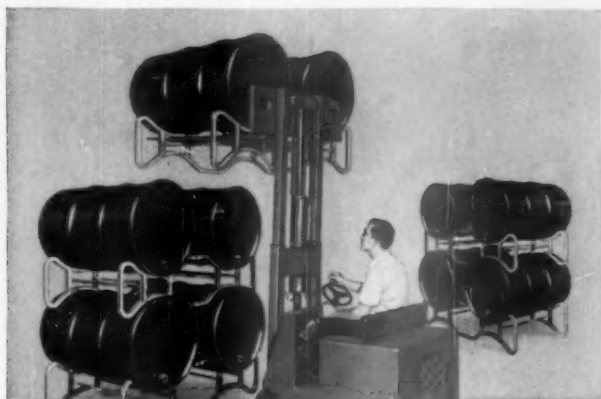
This fabricator needed a reliable source for large diameter heavy wall stainless steel tube for corona rings. From its large size range, Republic was able to provide the proper tube for this vital application.

Most experienced welded tube maker, and world leader in the production of stainless and alloy steels, Republic has all the facilities to qualify as your number one source. Complete range of sizes, gages, wall thickness. Broad distributor stocks. Large inventories of mill stocks to draw on. Top reputation for quality and for ability to meet deliveries. Technical and metallurgical assistance. Fast service: price and delivery quotations to you within twenty-four hours.

For applications requiring pressure-tested tube, Republic offers exclusive FARROWTEST®—the ultimate in non-destructive testing. This eddy-current test probes for and detects defects so minute they pass other, less positive tests. Tube quality is measured for you!

Send in your inquiries for Republic ELECTRUNITE Stainless Steel Tubing and Pipe. You'll like the product . . . and the service.

REPUBLIC ELECTRUNITE "DEKORON-COATED"® E.M.T. protects your electrical wiring systems, outlasts standard conduit ten-to-one in highly corrosive conditions of service. A tough coating of polyethylene encases strong, lightweight E.M.T. in an end-to-end armor that is impervious to gases, fumes, steam, and other corrosive atmospheres. Easy to cut, easy to install. Also available on Republic Hot Dip Galvanized Conduit. Send for additional information.



REPUBLIC STEEL PORTABLE DRUM RACKS may be your solution for hard-to-handle, hard-to-stack, hard-to-store containers. These steel cradles each support two loaded 55-gallon drums. Pairs of drums can be stacked to any practical height. More in-use drums can be accommodated in less floor space than ever before. Standard fork-lift trucks can pick-up, move, and stack Republic Drum Racks faster, easier, and with less effort. Send coupon for data.

PROTECT YOUR PRODUCT WITH REPUBLIC STEEL CONTAINERS. Republic's full line of steel containers help you extend control of your product from your shipping floor to point of use. Available in a wide variety of sizes and finishes, including stainless steel. For complete information, call your Republic representative, or write for the Republic Containers Catalog. Use coupon.



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Please send more information on the following products:

- ☐ Republic ELECTRUNITE Stainless Steel Tubing
☐ Republic ELECTRUNITE "DEKORON-COATED" E.M.T.
☐ Republic Drum Racks ☐ Republic Containers Catalog

Name _____ Title _____

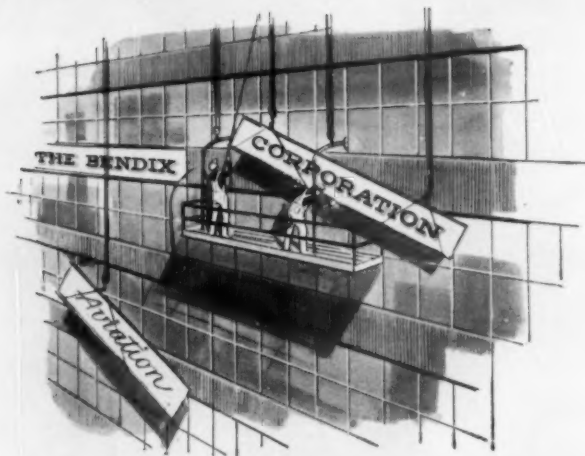
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After 31 years of continuous growth and diversification as Bendix Aviation Corporation . . .

We've changed our name to **The Bendix Corporation**



To reflect our dynamic growth in such fields as electronics, missiles and space, automotive, weapons systems, computers, machine tools, instrumentation, nuclear technology, hydraulics, meteorology, electrical, marine and others, we dropped "Aviation" from our corporate name on June 1, 1960. We do not wish to convey the impression that our products and skills are limited to the aviation field alone, although aviation products accounted for billings of \$388,700,000 in 1959.

Today Bendix®—through 25 divisions and 16 subsidiary and affiliate companies around the world—serves many fields.

Our success in the rapidly expanding age of aviation has long obscured the fact that the Bendix automobile starter drive was the company's first major product. Bendix introduced the type of four-wheel brakes that over the years has been used on most makes of cars. Bendix also pioneered automotive power brakes and power steering. Our automotive business in 1959 totaled \$114,300,000.

A notable trend in Bendix' recent history is the utilization of electronics in many of our major fields of activity. These range from automobile radios to aircraft and industrial communications and automatic flight controls . . . from electronic computers and data processing to numerical tape control systems for machine tools . . . and from transistors and ship-to-shore telephones to sonic cleaning and undersea sonar detection equipment. Approximately 40% of Bendix products are electronic, including air defense radar which today guards 25 million square miles.

Missile and space equipment

accounted for \$103,000,000 of our total business of \$689,692,312 in 1959. In addition to being the prime contractor for two important missiles, Talos and Eagle, we are also a supplier of components and sub-systems for most U. S. missiles. Bendix is likewise taking an active part in Project Mercury and in satellite communications. The first is the program to put a man into space. The second will mark a new era in communications by using a satellite in orbit as a relay station for global radio messages.

Bendix also has a growing and diversified nuclear program. Since 1949 we have operated the Kansas City Division for the Atomic Energy Commission. It is a large manufacturing organization employing 7,500 people engaged in the atomic weapons program. We also supplied control mechanisms for nuclear submarines and nuclear industrial power plants, and we are playing a part in developing the newest U. S. atomic power plants for aircraft, missiles and space vehicles.

Thus, as we drop "Aviation" from our corporate name, but not from our programs, we face a tomorrow where the range of our opportunities is broadening at a breathtaking rate.

A thousand



diversified products



HOLES...

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BLAST HOLES—Dams, roads, mines and tunnels start with holes: blast holes for the explosive charges that move millions of tons of rock and ore.

DEEP HOLES—Oil and gas wells start with holes: deep holes drilled to gain access to nature's underground resources.

FASTENER HOLES—The assembly of automobiles, furniture and home appliances also starts with holes: holes drilled, tapped or pierced for the fasteners that hold such products together.

Gardner-Denver makes the drills and equipment that make the holes—rock drills of many types for blast-hole drilling . . . drawworks, mud pumps and complete rigs for oil well drilling . . . air drills, presses and assembly tools for industrial production.

Holes—made with Gardner-Denver equipment—are changing the world, helping speed its economic progress for the benefit of all mankind. Gardner-Denver Company, Quincy, Illinois.



GARDNER - DENVER

equipment today for the challenge of tomorrow

nobody's done so much to make—and keep—you happy

Chevrolet, for example, knows that people like lots of room and concentrated on seating space instead of outside bulk. And, of all the leading low-priced cars, Chevy's the only one that gives you the hushed comfort that comes from Full Coil springs at all four wheels and "tuned" butyl rubber body mounts. Little things, you may think, until you drive a Chevy and feel the velvety result. Your dealer will arrange the ride. He'll also list a whole raft of things that Chevy's done to make you happy (including budget-pleasing prices for '60):

Roomier Body by Fisher with a 25% smaller transmission tunnel.

Pride-pleasing style (combines good looks with good sense).

New Economy Turbo-Fire V8 (makes friends fast by getting up to 10% more miles on a gallon).

Widest choice of engines and transmissions (24 combinations in all—to satisfy the most finicky driver).

Hi-Thrift 6 (built with Chevy's famed ever-faithful dependability).

Coil springs at all 4 wheels (with the extra cushioning of newly designed body mounts to filter out road shock and noise).

Quicker stopping Safety-Master brakes (specially designed for long lining wear).

Chevrolet Division of General Motors,
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there's no new car like a '60 Chevrolet. The Bel Air 4-Door Sedan.

Air Conditioning—temperatures made to order—for all-weather comfort. Get a demonstration.

BUSINESS OUTLOOK

BUSINESS WEEK

JUNE 18, 1960



Business is very, very good. Yet it isn't quite good enough to set at rest the doubts that keep nagging businessmen.

Perhaps that is an unhappy characteristic of the "high plateau" that once seemed so desirable. When you get there, you don't find a good, solid bedrock feel underfoot but a queer soginess.

You may even get a notion that there's no place to go but down.

Figures on the present level of business and of employment and of consumer spending, taken by themselves, look just fine.

But the fact is inescapable that, to Americans, a curve that isn't rising has no exhilaration in it. In fact, it may be downright depressing even though the facts justify no such feeling.

That helps explain the unhappy mood of many retailers (page 35).

Retail sales last month, on a seasonally adjusted basis, were the highest ever reported with but one exception.

The exception, of course, was the preceding month. April, with its very late Easter, had hit a stupendous pace of almost \$18.9-billion.

April's annual rate had been about \$227-billion, well above expectations for the year. May, at \$220-billion, was about on target.

Broken down between durable and nondurable goods, May showed a drop from April of 7% and less than 2%, respectively.

The 7% slide for durables, of course, has caused the qualms.

It has underlined the relative slack in appliance sales, and the major cleanup job that faces auto dealers (page 30).

Nobody could be much disturbed by the April-to-May sag of not quite 2% in stores' softgoods volume. Perhaps April's very high mark borrowed from May; and statistical error might have crept into it.

Actually, the Commerce Dept. has had a bad job on its hands trying to adjust for seasonal factors. First, April with its late Easter; then May, with only 24 trading days and 4 Saturdays.

Last year, May had 26 trading days and 5 Saturdays. One of last year's Saturdays was Memorial Day, to be sure, but that promoted May 29 to a big day. This year, May 30 dropped out of the retail calendar.

What the retail sales problem comes down to is about this:

Wait another month or even two, look for the vagaries of the weather to average out, and then see if things aren't back on the track.

Employment and payrolls certainly offer no cause to think that the consumer has been chased into his storm cellar.

More people were working last month than ever before in any May. In nonfarm jobs alone, more were working than ever before in any month.

Some further layoffs took place in metals and in metalworking, it is true. But the factory work-week lengthened and payrolls rose.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK
JUNE 18, 1960

The number of workers with jobs last month pushed above 67.2-million, a million better than in April and 1.2-million above a year ago. For non-farm workers, the year-to-year gain is about 1.8-million.

Even factory employment, although it hasn't been performing up to seasonal expectations, remains a bit above last year.

One thing to note about last month's employment characteristics: May broke the distressing series of declines in the length of the average factory work-week. In April, hours worked had been 39.4, down from a figure of 40.5 for the same month last year.

May's reversal carried the average up to 39.8. Nobody would say this is a boom-time level, but the turn-around is the thing.

Disappointing demand, which has resulted in inventories getting a bit high, continues to afflict many lines that depend on construction.

Lumber prices, for example, still are sagging (though this is the time of year when they usually head upward, aided by the seasonal rise in construction generally and housing particularly).

Mill prices in the Northwest now average 10% under a year ago.

Bad weather early in the year and, more recently, the failure of the highway programs to get up real steam have hurt cement.

Deliveries for the first four months of the year lagged 1959 by some 10-million barrels. And, even though production has been held down somewhat, storage stocks at the mills are at record levels.

This has created no visible price weakness, but the industry contends it has prevented advances badly needed to meet higher costs.

Some overproduction in home furnishings and appliances also is undoubtedly attributable to the lower rate of homebuilding. Housing starts so far this year are nearly 20% below a year ago.

Tire companies may not have been getting quite so much original equipment business from the auto makers as they did in the first quarter, but they seem to be making up for it elsewhere.

Replacement tire shipments for passenger cars in April totaled 6,558,000. That was the highest for any month since July, 1950, when car owners laid in extra stocks against a possible pinch.

One segment of the petroleum industry, at least, is beginning to see signs of improvement—refining and distribution.

There has been a brisk pickup in product demand. At the same time, refineries have held down crude runs sufficiently to begin making a dent in storage stocks of gasoline. And they've been chipping away for a good while at the prices they pay for crude oil.

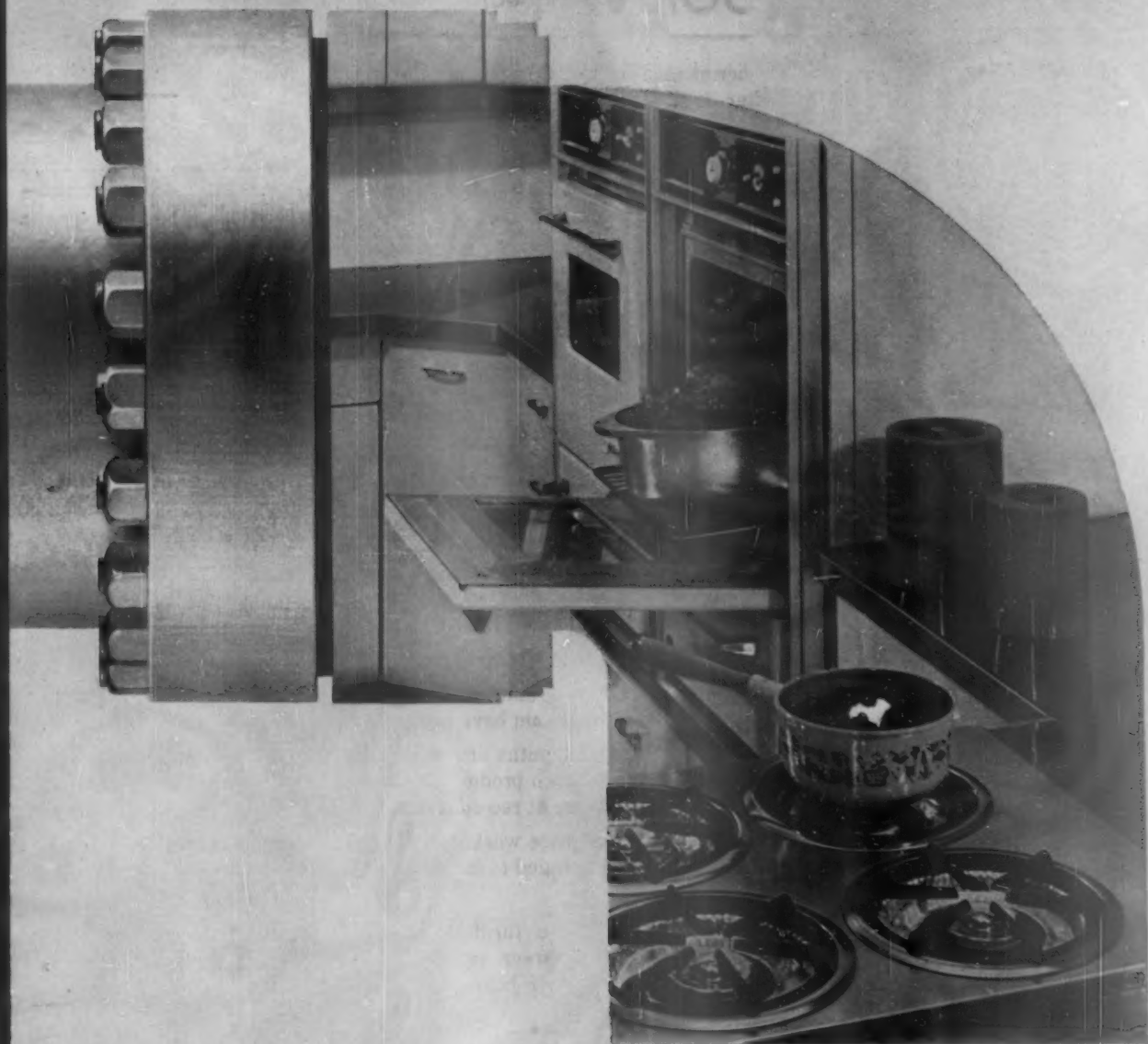
Now, as a real boon to operating margins, they have been restoring some of the earlier price cuts in gasoline over most of the country.

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TEXAS EASTERN TRANSMISSION CORPORATION

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Shreveport, Louisiana



MORE ENERGY... IN MORE FORMS... FOR AMERICA'S GROWING NEED

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Today, America's need for energy of all kinds is zooming. That's why Texas Eastern plans far ahead as it diversifies in the field of energy supply and enlarges its role as **Pipeler of Energy to the Nation.**

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... because of its low price and greater yield per pound of film. Measured against other transparent wraps, it can deliver savings up to 40%. ★ Consider what this means. Polyflex is ideal for protecting and displaying virtually all fresh or frozen foods: fruit, produce, meats, poultry, fish and others. Its unique "breathing" characteristic permits the passage of oxygen and gases, thus reducing spoilage and increasing shelf life. ★ The only styrene film that can be heat sealed, Polyflex is accepted by FDA for food packaging. It requires no special storage conditions, does not shrink, discolor, crack or go limp. It can be run on standard machines at commercial speeds, and is not affected by grease or moisture. ★ Polyflex is also available in heavier gauges for thermoformed packages. Write us for complete details.

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STEELCASE INC



PRES. EISENHOWER acknowledges warm welcome in Manila. Pres. Garcia (right) extolled his "unrelenting quest for peace."

Mending Fences in East Asia

Two-million cheering, singing Filipinos happily greeted Pres. Eisenhower as he arrived in Manila this week on the first leg of his tour of East Asia. Philippine Pres. Carlos Garcia welcomed him officially at the airport.

On the ride into the city, pressing crowds slowed their car to a snail's pace. One enthusiastic well-wisher clambered onto the hood of the President's car to shout a traditional Philippine toast, "Mabuhay" (long life), before the police hauled him back into the throng. In the city, the gay welcome compared favorably with the rousing reception the President received in India last December.

• **More Stops to Come**—Thus, Pres. Eisenhower got away to an auspicious start on a tour to rally four allies that are virtually under the guns of Red China.

On his way to the Orient, Eisenhower visited Alaska, the 49th state, and he will vacation briefly in Hawaii, the 50th state, on his way home. From the Philippines, his schedule calls for him to sail to Taiwan, then to fly on to Japan

and Korea. He will also pay a flying visit to the U.S. base on Okinawa.

Several of the President's advisers have openly opposed the stop in Japan, doubting the wisdom of exposing him to the violent demonstrations that have shaken Tokyo for the past three weeks. At midweek, the President appeared determined to go through with his plans, although a last-minute cancellation of the Japanese stop remained possible.

I. Purposes of Trip

The President is making this tour of the nation's East Asian allies because:

- The U.S. now considers Communist China the greatest near-term threat to world peace. The four countries he will visit are exposed to open and subversive pressures from Red China. Eisenhower wants to reinforce them against any temptation to falter in the face of those pressures.

- The U-2 incident and the subsequent breakup of the summit conference in Paris undermined the faith of some allies in Washington's ability to

avoid either stumbling into war or giving ground to the Communist bloc. Eisenhower seeks to reassure them that the U.S. has both the military and economic strength and the wisdom to use it to prevent war. He will try to build up the conviction that alliances with the U.S. are still advantageous.

- It gives the President a forum from which to reply to the flow of invective from Moscow and Peking. Communist China especially has been increasing the volume and intensity of its crowing over the summit failure.

- It is an opportunity for the President to regain his posture as a champion of peace, to reassert U.S. intentions of striving for peace. He will make it clear that, despite this spring's disappointments, the U.S. won't abandon its efforts to achieve an honorable truce with the Communist world.

II. Climate for Tour

Throughout most of his journey, the President will find much the same warmth of sentiment as in his Manila

reception. He should have little difficulty in accomplishing what he has set out to do in the Philippines, Taiwan, and Korea. These nations are firmly allied with the U. S. and, in many respects, dependent on the U. S. for their survival. Minor irritations exist, but they can be smoothed over. No major political or economic programs are expected to result from Eisenhower's visit in these countries.

Japan is something else again. Here the President will be confronted with a trying and possibly dangerous situation—the outbursts that stem from a national political schism over how closely that country should be tied to the U. S. or any other Western nation.

• **Active Neutralism**—A basic cause of the furor is a deep-seated element of neutralism and pacifism in Japan. World War II's devastation left vivid scars. Against this is the government's realization that without U. S. protection, Japan is defenseless.

The neutralists are demonstrating to protest Prime Minister Kishi's insistence that Japan remain allied with the U. S. They say Kishi is leading Japan back to militarism and disaster through the U. S.-Japanese mutual security treaty awaiting ratification in the Diet (and, at midweek, in the U. S. Senate).

The Communists and other left-wingers are taking advantage of this dissatisfaction to stir up anti-American rioting. The Socialists are also contributing to the chaos—they hope to force Kishi to resign and call new elections in which they might gain seats in the Diet.

Together, these groups sought to prevent Eisenhower's visit and thus discredit Kishi and his policies.

Eisenhower can probably do little to quell the uproar. He views the fate of Kishi government as a domestic matter, no proper concern of the U. S. He isn't likely to be able to improve U. S.-Japanese relations this time around; at best he will be able to keep them from getting worse.

III. Focus on East Asia

Whatever the outcome in each country, the President's tour will focus attention on U. S. commitments and interests in East Asia, much as his earlier trips to Europe, the Middle East, South Asia, and Latin America spotlighted U. S. affairs in those areas.

American ties with the Philippines date back to the turn of the century, but most East Asian commitments began with World War II and the post-war takeover of China by the Reds.

All these commitments are based on the same purposes: to contain Communist China's military expansion, to keep the economic wealth of Free Asia out of Communist hands, and to pre-



AGAINST THE VISIT, Japanese leftwing students demonstrate at the gates of Premier Kishi's home. Attempt of helmeted police to break it up resulted in bloody fracas. Students carried signs demanding Kishi's resignation and defeat of treaty with U. S.

vent non-Communist countries from slipping under Communist domination.

U. S. policy recognizes that Communist China is the strongest force in Asia today, with the manpower, the military power, the economic potential, and the shrewd leadership to make itself felt throughout not only the Orient but also the Eurasian continent.

To hold this power in check, the U. S. has pulled together a string of allies (map) from Thailand and Vietnam in the south to Korea and Japan on the north.

• **Positive, Negative Value**—These alliances have even greater military and political value than economic value, although Japan ranks as second-largest foreign market for U. S. goods.

From bases along this line, U. S. aircraft or missiles could strike anywhere in China and deep into strategic central Russia, or troops and supplies could move forward into a "brushfire" conflict, such as the "police action" in Korea. The U. S. commitment in East Asia is also tangible evidence of Washington's acceptance of its responsibilities as leader of the free world.

Merely holding onto these allies has the value of thwarting what would surely be a great gain for the Chinese Communists. Access to the factories of Japan, fourth-largest industrial complex in the world, and to the rice fields of all countries in the Asian chain would be a priceless victory for the Reds in Peking, who are ruthlessly regimenting the Chinese for a "Great Leap Forward" through industrialization.

Moreover, any break of ties between the U. S. and a nation in the East Asian chain would be a smashing political victory for the Reds. By raising doubts among other allies about U. S.

ability to stave off Communist pressure, it might set off a chain reaction of defections to a neutral position—on terms dictated by the Communists.

IV. Fences to Mend

Weaknesses of varying degrees vex U. S. allies along the East Asian line. Eisenhower's visit is expected to eliminate many of these vexations, but not all.

In Vietnam, not on the Presidential calling list, the government headed by Ngo Dinh Diem is unsure of itself, maintains its control only by tight restrictions on the press, opposition parties, and the economy. Under the surface, there's dissension, and Communist terrorists increasingly roam the countryside.

The Philippines have economic problems that are chronic, as well as occasional flareups of anti-American sentiment, much as an adolescent against his parents. Pres. Garcia doubtless is asking Pres. Eisenhower for help in modernizing the armed forces and some more economic aid. The country is trying to build up a bit of industry, but inflation and graft prevent progress.

Korea will probably welcome Eisenhower as warmly as the Filipinos did. Friendship toward the U. S. is reported at an all-time high, because Washington supported the dismissal of Syngman Rhee's regime. The new government may ask more economic assistance, but there's no fear of its flirting with the Reds. U. S. officials say no more hard-nosed anti-Communists are to be found than in Korea.

• **Chiang's Successor**—The U. S. has few immediate problems with Chiang Kai-shek's government on Taiwan, but the future is cloudy. U. S. backing of



FOR THE VISIT, rightwing group scattered pro-American leaflets and waved "Welcome Ike" banners from sound truck.

Chiang's regime lacks support in many neutral countries, even among some allies. Each time the U.N. votes to seat the Nationalist delegate in preference to that of Peking, the tally comes closer to favoring the Communists as the Afro-Asian bloc gains strength.

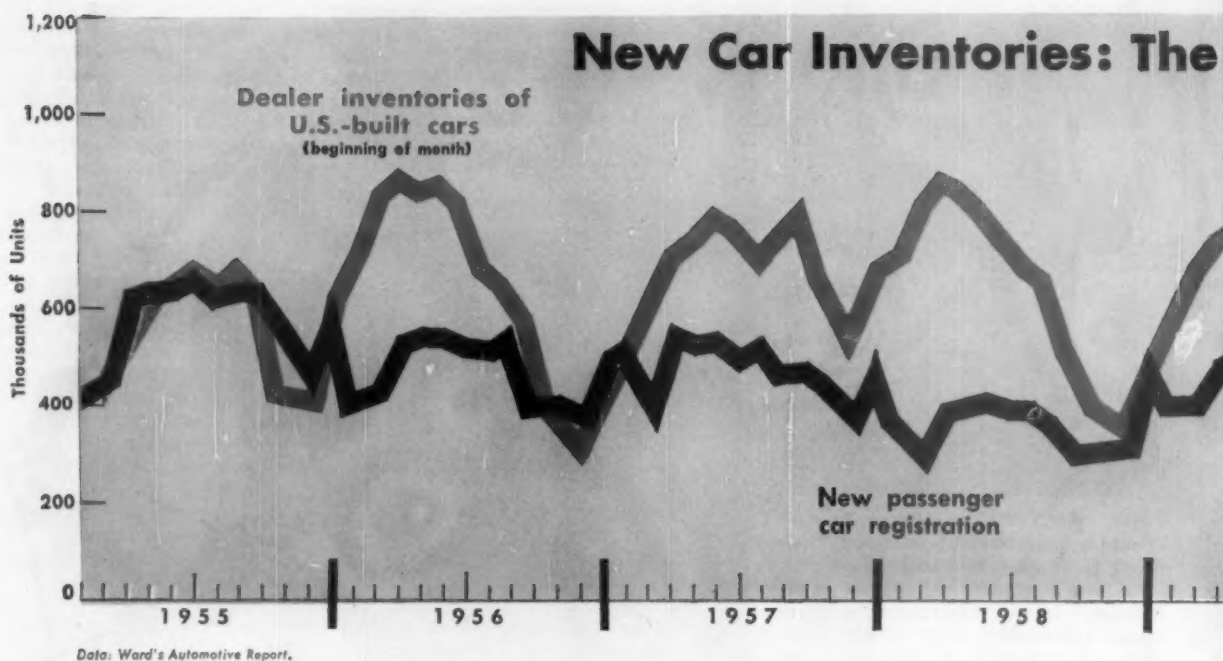
What happens after Chiang passes from the scene is a question. Premier Ch'en is in line to succeed him, but Chiang's younger son, Chiang Ching-kuo (now head of the secret police), is known to have ambitions. The soldiers who followed Chiang to Taiwan are aging, and morale sags lower each day as it becomes more evident that a drive back to the mainland is remote. Besides, the Nationalist Chinese have never been popular with the Taiwanese, who are pressing for more influence in the government.

• **Japanese Democracy**—Of course, Japan remains the biggest immediate problem in East Asia. No one expects pacifist sentiment to change overnight, or Kishi to remain long in power after Eisenhower's departure, though the mutual security treaty is expected to go through.

American officials are most troubled by the current unrest as a demonstration that the present form of Japanese government is inherently unstable. Japan appears not to have digested the democratic, parliamentary institutions that permit gradual and relatively smooth changes in government policy. Instead, the Japanese are testing their government structure with violent pressure.

At midweek, during more bloody riots and a government crisis, a high Japanese official called the sorry affair "a planned action dictated by international Communism to destroy democracy by violent revolution."





Why Detroit Isn't Worried About

Dealers' stocks already have passed the 1-million mark, but the industry is confident that brisk sales will pull them down by the end of the model year.

For four months the automobile industry has been living well in the presence of a statistic it once avoided in horror. Stocks of new cars owned by dealers passed the 1-million mark in March (chart) and should climb above 1-million before June is over.

You can tell how much the auto industry has been changed by the new market forces from the fact that the million-plus car inventory hardly arouses comment in Detroit. Sales of new cars in May fell below April—which you wouldn't expect to happen in a good year. Yet June production schedules for some makes were increased slightly above those of May.

• **Changing Attitude**—Five years ago, when dealers' stocks hit 700,000 in May, suspicion was voiced that the industry was stockpiling cars in anticipation of labor trouble. The following year when stocks rolled up to 890,000 in February and hung above 800,000 through May, second-quarter output was cut back so sharply that it ranked as the third lowest second quarter in the decade. Second-quarter production this year is expected to be second highest, surpassed only in 1955, which was a record year for the auto industry.

There is some muttering in dealers' ranks about the number of unsold cars in the field, but not so much nor so bitter as you would expect. Dealers generally get a variety of financial incentives to order cars this late in the model year—"build-out bonuses" they are called. This year, because contests have been running since March, some dealers feel that the build-out bonuses should be reviewed and possibly reconstructed, but they're not stirring up an indignation march on Detroit.

• **Quiet Confidence**—No one seems too deeply concerned about the million-plus inventory, and there is quiet confidence that on the auto industry's "New Year's Day" when the bulk of the 1961 models are out—roughly Oct. 1 this year—there will be only the usual 350,000 to 400,000 old-model cars that still remain to be sold.

That's because it is a new automobile business in which old form charts don't necessarily hold.

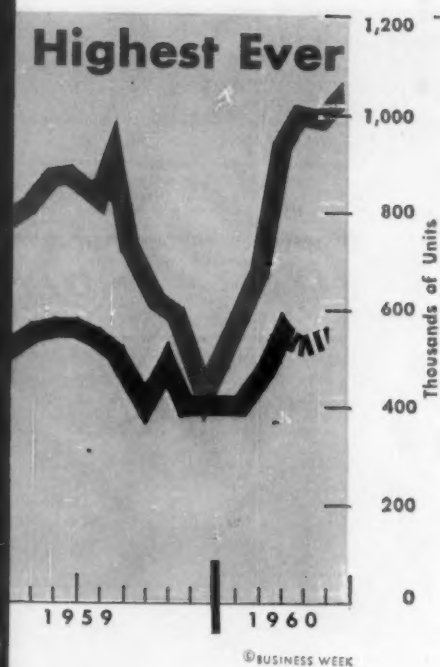
I. Sales Pattern

There are two major factors to be considered in studying the number of cars in dealers' hands. The first is the

selling rate. During May, about 566,000 domestically made new cars were sold, compared to about 579,000 in April. As most dealers do not operate on Sundays or holidays, the sales people in Detroit figure there were 26 selling days in April and only 25 in May. So they get a "daily selling rate" of about 22,260 in April and 22,440 in May. In other words, if all dealers had been selling on May 30, May sales would have been nicely ahead of April and the monthly sales curve would have moved up. Accordingly, the factory sales analysts are not disturbed that May sales dropped from the preceding month.

The sales pattern for this year is now too well-established to go awry—the annual rate is about 6.2-million. It is not too unreasonable, then, to expect June deliveries (including exports) to be at least 550,000. That would leave dealers with an estimated 1,120,000 1960 model cars as the third quarter opens. The third quarter is the key to all of the figuring. For a good part of it, dealers will be selling out of stock, with no fresh shipments coming from the factories.

• **All-Important Timetable**—Because the National Auto Show opens in Detroit on Oct. 15, practically all of the 1961 models will be on sale by early October. So, working back from there, it takes roughly six weeks to fill the pipelines from factory to showroom.



the Cleanup

That means 1961 production will have to begin around Sept. 1. Allowing two weeks for factory changeover, the end of 1960 model production will occur in the middle of August. That's a rough general calendar that doesn't apply specifically; for instance, some Chrysler and General Motors makes end 1960 production in late July and start running through 1961 models in the middle of August.

Ward's Automotive Reports estimates that 660,000 1960 models will be turned out in the third quarter. Added to the June 30 stock, that will give dealers nearly 1.8-million cars to work off before the 1961 models appear.

II. Holdovers

As a practical matter, no one expects or wants to sell the last 1960 model the night before putting the 1961 cars on the floor.

There are always a couple hundred thousand customers who want a depreciated undriven car, and no dealer likes to take a chance of losing a sale. Consequently, it is customary to have anywhere from 250,000 to 500,000 old models in stock when the new cars go on sale.

To get the supply of 1960 models to below 500,000 roughly by Oct. 1 will require an average daily selling rate of not much better than 17,000. In some

years, that would be asking a lot for the summer months. But this year the daily selling rate has been above that all year, and since February it has been above 20,000. What the industry forecasters keep their eyes on is the tempo—the daily selling rate as applied to the inventory.

The June daily rate should average out to about 21,000 cars. If you want to work the inventory of 1960 models down to 350,000 by Oct. 1, you have to deliver 1,450,000 autos in the third quarter. At the June rate, that's a 69-day supply—and there are 77 selling days in the third quarter. That's why one industry chart-watcher says blandly "some dealers are going to be short of cars."

III. Uneven Supplies

That remark involves the second major factor in the size of the present stock of new cars. It is "mix." There are some makes that reportedly have an 80-day supply of cars out in the field. In contrast, dealers in Mercury Div.'s new Comet are working with only a 14-day supply—not enough, actually, to give a prospect an acceptable choice of accessories and options. Ford has been having trouble keeping the Falcon supply much over 20 days. Dealers' stocks of American Motors' Rambler and Chrysler's Valiant are between 30 to 40 days' supply, with supplies of the other two compacts, Chevrolet's Corvair and Studebaker's Lark well above the industry average of 46 days.

Normally, you might think of a car with a 60 days' supply in the field as being a bit sticky in sales. This year, that's not necessarily so. Field stocks of the standard-sized Ford are above 50 days' supply—and sales of the car have been lagging behind last year's figure. On the other hand, supplies of Corvair and Valiant are just as high, but sales seem to be on an upcurve; considering that for six weeks or more sales will have to be out of inventory, a 50-day-plus supply might not be considered at all untidy.

• **Greater Variety**—Another part of the "mix" factor, of course, is the greater variety of automobiles than in recent years, due to the Big Three compact cars. You can see what this does to the inventory picture by realizing that through May, sales of domestic cars were more than 300,000 above the same period of last year. Sales of the Falcon, Comet, Corvair, and Valiant—which were not on the market a year ago—for the first five months of this year totaled around 400,000. To sell more, you have to carry more in stock.

"After all," says a market analyst in dismissing the large size of the new-car inventory, "the industry is in a big year."

Mergers on Track

Four big Eastern railroads nearer to uniting into two bigger systems—if Central doesn't throw the switch.

Four Eastern railroads seeking to merge into two huge systems (BW—May28'60,p34) this week moved closer to their goal. A competing carrier—the New York Central—in two days made two seemingly contradictory moves affecting the weddings.

Directors of the Norfolk & Western and New York, Chicago & St. Louis (Nickel Plate) agreed to formal terms of a consolidation. The marriage would hinge on using a 111-mile Pennsylvania branch that links them. This problem is hardly insurmountable, however, because the Pennsy owns 33½% of the N&W's voting shares.

Also this week, the Chesapeake & Ohio mailed stockholders of the Baltimore & Ohio a formal offer to swap 1½ B&O common shares for 1 C&O common and also asked the Interstate Commerce Commission to let it acquire control of the B&O and ultimately merge with it.

• **Central's Plea**—A few hours later, New York Central requested the ICC to investigate all mergers with a view to setting an over-all policy to replace the case-by-case approach.

Alfred E. Perlman, Central president, also urged ICC not to approve mergers or purchases if the carriers are not already part of "the same railroad system." This was apparently aimed directly at the N&W-Nickel Plate and B&O-C&O deals. At one time, the Central was talking informally with the latter two, and Perlman told his annual meeting that the Central would be the "base" of a three-way system. However, formal negotiations proceeded between C&O and B&O alone.

The day after submitting his document to the ICC, Perlman called a special directors' meeting for June 24 to "consider a proposed offer to stockholders of the B&O." His move is at least another gambit to delay the C&O-B&O talks and at most a preliminary to a counter-offer to B&O shareholders. The C&O may have anticipated Perlman's second move. For on the same day it filed with ICC a petition to acquire the B&O's stock, and in its petition, said: "Inclusion of any other Eastern railroad in this two-way affiliation would destroy this constructive movement. . . ."

A C&O-B&O combination would be larger—and richer—than the Central. This is what Perlman almost certainly wants to forestall.



CAMPAIGN TRINKETS range from giveaway buttons to \$25 jewelry, include pins, bracelets, tie clasps, ash trays, pencils.

Campaign Year Says It With

An election year always brings a boom in the button and banner business.

At a certain point in a political campaign something happens that's almost like spontaneous combustion. Suddenly everyone in the street is wearing his candidate's button. Women are sporting bracelets or other jewelry decorated

with his picture. Souvenir shops are taken over by ash trays and an endless variety of accessories bearing his likeness or name.

In fact, there is nothing spontaneous about it. For any political office seeker, certain campaign props are a must. Somewhere on every speaker's platform

there must be a U.S. flag to attest to the fact that the candidate is pro-American. (And in the first election after two new states have been admitted, the flag must have the right number of stars.) Elsewhere, there must be buttons and matchbooks and bottle openers—anything to get the candidate's



Buttons

name around. On any properly organized political team, somebody must be responsible for seeing that all this happens.

The makers of political buttons, gimmicks, and jewelry, and the makers of U. S. flags are two small industries that count heavily on these facts of political

life. In most years, trade is steady, and they make their profits without much fanfare and without much influence on the national economy. But come an election year—particularly a Presidential election—the sales volumes of both these industries erupt.

• **Banner Year**—This year, business is booming as never before. William C. Dwiggins, general sales manager of Annin & Co.—one of the biggest flag makers—says, “flag orders are skyrocketing.” Although the company has three plants and is adding to its force, it is hard pressed to fill orders. Says Dwiggins: “We don’t even know how many flags have been ordered, we’re in such a state trying to keep up with them.” Other manufacturers report weeks of delay before shipments can be made.

• **Novelty Department**—The demand for political buttons, jewelry, and accessories is getting under way, too, and most manufacturers expect the peak just after the Presidential candidates are nominated and hard campaigning begins. Joseph Warner, a New York manufacturer who sells jewelry lines to hundreds of Republican clubs around the country, expects sales to reach 35% of his total business by then. J. Friedes Co., manufacturer of commercial stationery, started making a line of pins, bracelets, and special items such as an address notebook for the lapel, during the last Eisenhower campaign. The company expects this year’s political jewelry sales to become an important part of its business, and is stepping up its sales campaign through letters, catalogues and personal contacts at political clubs and the coming conventions.

Introduction of what Warner calls “the fashion quotient”—jewelry that can be worn after campaigns or with an expensive dress that might be “killed” by ordinary campaign buttons—is pepping up the manufacturers’ sales, as well as the campaign treasuries. These retail at prices ranging from \$1 to \$25 per item, compared with a few dollars per thousand wholesale for campaign buttons.

Warner, who has been selling women’s fashions of some sort for 30 years, was one of the first to persuade political clubs “to get away from the cheap campaign buttons that wind up in the wastebasket two hours after they’re handed out.”

Because so many women are in politics today, Warner guessed right that “fashion could be applied to politics.” In the last Presidential campaign, Mrs. Eisenhower wore a pin he designed especially for her. Thousands of copies of the pin were eventually sold.

• **Clubs Help**—Some manufacturers claim that foreign events have added intensity to campaigns, even before nominations, and that the number of political clubs springing up is greater

than ever before. Warner, for example, has a list of 500 clubs that he regards as likely sales targets.

The clubs themselves have spurred sales by introducing trinkets that can be sold at a profit. Taking their cue from the sales methods of the manufacturers, many start off by buying a complete line of jewelry—maybe 25 designs—selling between \$1 and \$25. In the next step, the clubs—usually the women’s auxiliary—spot the pieces that sell best. So the next order may be for only half a dozen designs, but the volume of the order will be higher.

Not surprisingly, perhaps, Republican clubs are the best customers—if the order books of jewelry manufacturers are an indicator. The Democrats, says a Democrat, still like to give things away.

• **Patriotism Plus**—The coming elections and world tensions are working for the flag makers, too. According to one manufacturer, it’s a combination of patriotism and politics that is giving Americans a yen to wave the flag.

This industry has had a steady growth. Every school needs flags, as does every government office. So growth comes as more schools are built and as bureaucracy expands. More comes from the boat owners’ craze to add flags and pennants. This year the industry has almost more business than it can cope with.

The admission of Hawaii to statehood and the adoption of a 50-star flag this Independence Day was something the industry could prepare for. It did, but according to Dwiggins of Annin & Co., “We didn’t realize to what extent it would develop even though we’ve known about Hawaii since last August.” Annin, which sells flags ranging in size from an inch to a 60-by-90-footer (\$4,000) for the George Washington Bridge, says that everyone wants their flags by July 4, the date on which the 50-star model becomes official.

• **Rough Seas**—Annin and other flag makers have been buffeted for two years. When Alaska became a state two years ago, the company built its flag-making capacity. (Annin—a giant by comparison with most of the industry—occupies much of the Annin Building in New York, and has three plants.) Orders came in for a 49-star flag, but shortly after the industry was becalmed by the expectation of Hawaiian statehood. Not only did orders cease, but some customers who had already received new flags demanded their money back.

This time, the industry made sure of itself and the orders. But once more it is in trouble, since one of the biggest competitive problems is on-time delivery. With capacity lower than demand, even Annin can promise only a six-to-eight weeks’ delivery.

Pickands Mather Becomes an "Inc."

Nearly every morning for three-quarters of a century, the top brass and department heads of Pickands Mather & Co. have gathered for a meeting. Each man has an assigned chair, and the reports to John Sherwin (picture), senior managing partner, are always made in the same order.

In this tradition of constancy, Pickands Mather—iron and coal miner, Lake shipper, and sales agent—has attained an envied position in its field with little publicity and no fanfare. It is one of the least known companies of its size—you can only guess as to its size since no financial figures are ever published.

Now, after 77 years as a partnership, Pickands Mather, beginning July 1, will operate as a corporation. When it does, Sherwin will become president of the new Pickands Mather & Co.

• **Mechanics**—To effect the switch, Pickands Mather elevated eight officials to partnership, bringing that total to

14. Then it changed the partnership name to P-M Associates, which is to be a holding company for the new corporate operation. All 14 partners of P-M Associates will be directors of the new Pickands Mather & Co.

The next step was to change the name of Mather Iron Co., a former wholly owned affiliate, to Pickands Mather & Co. and raise it to operating status. Mather formerly was used by the partners to hold their interest in other than PM properties. For example, PM's stock in Interlake Steamship Co. actually was held by Mather.

Except that the company will now operate through a corporation, nothing will be changed, according to Sherwin. No new financing or sale of securities is planned at this time.

• **Why Change**—PM was the last of the four major competing iron ore mining companies, all with headquarters in Cleveland, to begin corporate existence. It followed by a little more than two years a consolidation and incorporation of Oglebay Norton Co. (BW—Feb. 15 '58, p162). M. A. Hanna Co. incorporated in the 1920s. Cleveland-Cliffs Iron Co. began as a corporation 110 years ago.

The reasons that prompted Pickands Mather's change at this time were slightly different from those that led the other companies to incorporate. Hanna was fast to take advantage of corporate tax benefits. Oglebay Norton had created a many-headed structure, encumbered by many corporations and a ruling partnership, and leading to costly accounting practices and some unnecessary financial problems.

Tax benefits have been a consideration at PM for many years, but in the past they haven't been important enough to tip the scales. Thus, the overbalancing weight at this time seems to stem from the people and the new growth of PM.

The second reason is that a partnership is limited by its structure in the number of people it can reward. PM has never had a long list of partners—only six until the changes become effective July 1. A partnership has no stock to give in options, and has other limitations on the incentives it can use to attract good people.

A third reason is the fact that incorporation improves the borrowing power of a company and opens new avenues of financing.

• **The Company**—To understand why the change wasn't made sooner, you

have to take a look at what the company is and how it got that way.

PM manages Interlake Steamship Co., a publicly held company, which operates the second largest fleet of ships on the Great Lakes—second only to the Pittsburgh Steamship Div. of U.S. Steel Corp. Last year, PM shipped 7,706,152 gross tons of Lake Superior region ore. In addition, the company has interests in coal, merchant pig iron, and related industries. It also manages coal and iron ore loading docks.

The fact that a company with such wide interests and such an important role in basic industry is little known outside the immediate areas of its activities is no accident. The partners have shied away from the public eye because Sherwin just doesn't think anyone is interested in his company—or that they should be, for that matter.

When, a few years ago, Interlake Steamship launched a ship named John Sherwin, president of Interlake as well as head of PM, every effort was made to limit the publicity attending the ceremonies. And even press releases announcing the corporate change were given only limited circulation and Sherwin refused permission for a photographer to make pictures of the company's operations. Incidents such as these have led one industry observer to comment: "Pickands Mather has finally been dragged, kicking, into the Twentieth Century."

• **Not So**—To those who know the company better, that remark is far from accurate. Despite its outward appearance, PM has been shoving its way ahead in the rapidly changing iron mining industry.

In 1957, it began commercial operations at the \$300-million taconite plant of Erie Mining Co. in Minnesota. The plant, owned by Bethlehem Steel Corp., Youngstown Sheet & Tube Co., Interlake Iron Corp., and Steel Co. of Canada, Ltd.—but planned by PM—is the largest in the world for processing taconite.

Currently, PM has a pilot plant in operation for Wabush Iron Co. at Wabush Lake in Canada (BW—Apr. 18 '59, p54), and has almost completed a railroad spur to serve the huge Canadian iron ore development. Observers have predicted that a major portion of the future iron ore needs of the U.S. will be met by Canadian imports and new developments such as Erie's taconite operation. PM is the only one of the mining firms with a major interest in both taconite commercial operations and in Canadian ores.

These developments in taconite and in Canada call for more highly skilled employees. This need and the desire to offer incentives that would attract talent were the keys that opened the door to PM's corporate existence.



JOHN SHERWIN changes title from senior managing partner to president as Pickands Mather begins operations as a corporation.

Retail Sales Turn Soggy

● Commerce Dept. figures for May show a 3% drop from April's record level.

● Though some merchants blame the weather or the calendar, a lot say they just don't know what's happening.

● Auto sales are ahead of 1959. In appliances, sluggish sales and heavy stocks are causing output cuts.

Businessmen have been scratching their heads the last few weeks trying to figure out what some of the economic indicators are foretelling. This week they had another figure to add to their perplexities. Retail sales as measured by the Commerce Dept. showed a 3% drop for May as compared to April, on a seasonally adjusted basis.

This confirmed what manufacturers and retailers already knew; they had felt a marked decline in May sales. What bothers them is whether the figure signals a real letup in consumer buying after Easter's exhilarating upsurge or whether it's all just a statistical mirage created by bad weather, a late Easter, and sharp differences in calendar shopping days.

I. Cloudy Picture

For the fact is no clear picture emerges from the statistics, with changes relatively small and total sales still at or near record levels. Federal Reserve Board department store figures show a year-to-year gain for 1960 of 1%; and the Commerce Dept.'s April figures, seasonally adjusted, hit an all-time high. The drop in May—to \$18.3-billion from April's \$18.8-billion—may have been a statistical fluke since so many seasonal factors had to be taken into account, including the late Easter that probably robbed some Mother's Day business in May. Retailers also cite the cool, rainy, and unseasonable weather that has prevailed from just about Easter on. The head of a big Chicago store says sales are generally poor. "Anything that pertains to the weather is selling horribly," he adds. He wishes he could name what's wrong generally, since the weather is getting to be "a pretty punk excuse."

• **Fickle Customers**—Regardless of explanations, there is no question that retail sales haven't matched the expectations early in the year of merchants or producers.

"Our customers," says the manager of a big women's and children's store in Louisville, "are like chameleons this year. One day they buy, the next day they don't." And a disappointed department store executive in that city

detects a mass case of jitters. "We know people have got money and we know they are working. But we don't have the free spending that goes with a trouble-free mind." For the past two months, says a third, "it has been fairly obvious we aren't going to do better this year than in 1959. It looks now like we'll match 1959 and we are buying on that basis."

Hardly anywhere have summer goods started to move. In Milwaukee backups were reported on dehumidifiers, air-conditioners, electric fans, refrigerators, outdoor furniture, picnic equipment, and summer apparel. A big Pittsburgh department store looks for "a lazy sort of sales picture" through the summer: "If we make last year's figures we'll be doing fine." On the other hand, the latest FRB department store figure for Pittsburgh shows a 5.7% gain over 1959 for the week ended June 11.

II. Sticky Hardgoods

Of vital importance, of course, is what is happening to consumer durables, including the all-important sale of automobiles. It's a highly mixed picture and one that has manufacturers battling to keep production in line with consumer buying.

• **Car Sales**—In the case of automobiles, the industry turned in one of its stellar performances during April. Total registrations, according to R. L. Polk & Co., hit 647,000, the best month since 1955. In May, it is estimated that registrations will be down somewhat. Although for the year to date, what with the hot-selling compacts, total industry sales are running about 114% ahead of 1959, including imports. Although dealers' inventories of new cars are the highest ever, second quarter production remains high (page 30).

One comfort the auto makers can enjoy is an apparent decline in imported car sales as a result of the compact's success. This fall there'll be even more compact brands on the market to battle the foreign makes.

• **Appliances**—If heavy inventories have confused the auto picture, they have confounded the appliance makers. You have to go back to the steel strike and

the first of the year to get the proper perspective.

Appliance makers had bought heavily to build their steel inventories. They weren't sure when the strike would be over and they were gearing their production plans for 1960 to meet what almost everybody thought would be the beginning of the soaring Sixties.

Then (1) the strike was settled and (2) somebody had forgot to tell the consumer he was the one who was supposed to make the Sixties soar.

Now, as a result, you have mediocre sales of major appliances with a heavy overhang of factory and distributor inventories, with retailers buying hand-to-mouth just to keep even with consumer demand. Price-cutting is rife, and appliance makers can't see much profit in a market like this.

• **Production Cutbacks**—Most of the major manufacturers have been cutting production to bring inventories in line with current sales. One Chicago manufacturer thinks some in the business probably will postpone introduction of 1961 models until late summer.

Another major producer believes the inventory buildup has stopped, but that it will be at least the end of July before a balance is reached.

Despite the cuts, General Electric Co. still expects to match 1959 sales, a relatively good year, and may top them by a few percentage points.

Thus the droopy appliance picture at least partly can be blamed on an over-optimism, with manufacturers now accusing economists of underestimating the effects of the steel strike and the heavy consumer debt load.

• **Retail Story**—At retail, the appliance picture is mixed. No doubt sales have been slower than hoped for. But Electrical Merchandising Week, a McGraw-Hill publication, reports that in the first four months of this year sales of only two (electric water heaters and washers) out of nine major appliances are below their levels for a similar period in 1959. Room air conditioners and TV showed no gains, but refrigerators, freezers, electric ranges, driers, and dishwashers posted gains ranging from 2% to 25%.

All in all, says a major appliance maker, the total mix of major appliance sales should be about on a par with 1959 as far as unit volume is concerned, although the company's own early prediction of a 5% gain for the year won't be reached.

On the other hand, Whirlpool Corp. thinks its estimate of a 5% gain for 1960 is still right. But it may have its fingers crossed. It says no curtailments are planned in products "at this time."

Europe's Six Won't Add Seven

● The two rival trade blocs that are setting up shop in West Europe will apparently be going their separate ways for some time.

● The six-nation European Economic Community, steaming ahead with its own plans for political and economic integration, has rebuffed merger with British-led European Free Trade Assn.

● But some narrowing of the gulf may come through individual tariff cuts at this fall's negotiations on GATT.

Politically and economically, Western Europe is still at sixes and sevens—with little hope for a closer rapport right away.

That's the result of a 20-nation trade meeting in Paris last week, with the U.S. and Canada in attendance. The session failed to open the way for an early merger between the Six—the six-nation European Economic Community—and the Seven—the British-led European Free Trade Assn.

The Six (Belgium, France, West Germany, Italy, Luxembourg, and the Netherlands) are lowering tariffs among themselves and creating a Common Market by charging outsiders a uniform tariff. Recently they decided to accelerate the schedule for putting both these plans into effect. The Seven (Austria, Britain, Denmark, Norway, Portugal, Sweden, and Switzerland) are to start July 1 on a program of reducing tariffs imposed on each other—though not external tariffs. It had hoped to make a deal with the Six before long that would link the two groups in a loose European market without committing the Seven to close economic and political ties.

• **Impasse**—In Paris, the six members of EEC insisted last week that any trading difficulties with their seven rivals in EFTA should be resolved by special tariff deals, commodity by commodity, open also to the U.S. and Canada. In response, EFTA had to abandon hopes for merging with its rival soon. The strength displayed by EEC proved that it intends to push ahead with plans for rapid economic integration and closer political unity.

The effect is to leave the two European trade blocs at a standoff; how long it will last is anybody's guess.

Britain, the leader of the Seven, is reconciled to continuing the standoff while EFTA gets going and while negotiators for the General Agreement on Tariffs & Trade tackle some of the most glaring specific differences between the

rivals. GATT comes up for discussion again in September, and preliminary work is beginning soon.

• **Britain's Goal**—Eventually, though, Britain is determined somehow to link the two trading groups into a single market. Chancellor of the Exchequer Heathcoat Amory this week said flatly that this is still the British goal. The British have in mind some such relationship with the Continent as developed after World War II through the Marshall Plan and the Organization for European Economic Cooperation. They want an economic association with EEC, to give them most of the trading advantages of club membership, without involving themselves in the political commitments the Six have made to one another. They figure this approach has strong support from both business and government in Germany, Belgium, and the Netherlands.

However, EEC's executive body, the Commission, feels Britain and EFTA must join the club outright or stay outside, and the French government agrees. In time, EEC officials argue, the group's growing economic and political strength will force Britain to ask for admission as a full member. There's a lot of talk in Britain itself these days that such a step will soon be necessary, lest the nation be isolated from European economic development. But Britain is still far from ready to team up with the Six on these terms.

I. View From Washington

In the U.S., meanwhile, the State Dept. is quite content that the Paris meeting failed to bring the two European blocs together.

From the beginning, of course, the State Dept. has backed the Six—in 1950 when they formed the Coal & Steel Community, in 1956 when they set up EEC and Euratom, and since then during their battles with Britain, first over the British proposal for a Europe-wide

free trade area and later over EFTA's merger overtures to EEC.

Originally, the motivation for this support was mainly political. The U.S. felt the six-nation bloc would reconcile France and Germany, traditional enemies, and tie the Germans permanently to the West. At this time, the U.S. wasn't worried about any trade discrimination against its own goods that might result from the grouping; in fact, it might even have accepted the free trade area if France had gone along.

Then, late in 1958, the U.S. began running a deficit in its international balance of payments—selling less than it was spending abroad. The State Dept. decided to stick with the Six, largely for the same political reasons, but to try also to prevent the formation of any wider trading bloc that might create a large market to which U.S. goods were denied entrance. In addition, it decided to press the Six to set their common tariff lower than planned, so that U.S. exports would be less handicapped.

The net result has been to favor EEC over EFTA. This seemed the best way both to achieve U.S. political goals and expand exports. Some U.S. officials in Europe have openly said that competition between the two groups is a good thing: If it reduces tariffs, it will help U.S. exports.

• **Disagreement**—However, the Treasury Dept. has disagreed with State's backing of the Six all along, on the ground that this is encouraging the rise of regionalism all over the world. Regionalism, Treasury officials think, is bad for U.S. economic interests.

Some U.S. businessmen are in accord with the Treasury. But most U.S. companies with investments in Europe have accepted EEC as a fact. They do hope, though, that the two blocs can soon be brought closer; otherwise, the companies might have to establish separate facilities in each.

II. Piecemeal Approach

Basically, there are only three possible ways to link the rivals.

The first road to rapport is not to attempt any over-all agreement but to bargain individually on each item squeezed by the conflicting tariffs. This piecemeal approach will be tried in the next few months, at first through a special contact committee set up to do some of the preliminary work for the GATT talks in September. The committee, representing both Six and Seven, will seek to find out where the suffering will be and to reach preliminary agreement on these items. Final negotiations will be left to GATT.

New station sign, featuring the name in red and the dinosaur in green, is being installed at Sinclair outlets in 36 states.



The Return of the Dinosaur!

The dinosaur, long identified with fine crude oil, is returning to Sinclair dealer stations.

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—and at that stage the U.S. will probably be cut in on any special tariff deals.

The items involved will include autos, chemicals, textiles, and petroleum products.

• **Outlook**—This may be as far as the Six and Seven get for a year or two. Actually, this approach might work fairly well if the tariff reductions through GATT were very substantial. That way, the discriminatory practices of the two blocs would cause little diversion of present trade patterns. But it's unlikely that tariffs could be cut enough to eliminate the friction between blocs. To negotiate cuts of that size under a general agreement, the Europeans would want reciprocal reductions in U.S. tariffs far greater than the present Trade Agreements Act allows.

III. Perhaps a Customs Union

The second and more far-reaching solution would be for the Six and Seven to agree to work toward a common tariff on industrial goods and to make special arrangements for farm products. In effect, the goal would be to form a customs union between EEC and Britain, plus some of the other EFTA nations.

There is considerable support for such a scheme among businessmen in both blocs. It appeals to many Belgians, Dutch, and Germans—including some officials of those countries—as an opportunity to widen the market for their goods. The idea also has backing in Swedish, Swiss, and British business circles.

• **Commonwealth Role**—However, the British government isn't yet ready to propose such a customs union, though it may be later this year. One of the hurdles for Britain is the effect on the system of Commonwealth preferences. This gives Britain favored access for some of its manufactured goods in countries such as Australia and Canada; in return, the Commonwealth nations get similar privileges in Britain for their food products and raw materials. Some British officials regard the Commonwealth as a more important market than Europe anyway. Britain sends only 25% of its exports to Europe over-all, 14% to EEC nations.

Two of Britain's EFTA colleagues, Sweden and Switzerland, have strong reasons to shy from a customs union, too. In such a league, their present low tariffs would have to rise, and this would hike the cost of the goods they make from imported materials. Belgium and the Netherlands, the low-tariff members of EEC, will be suffering the same disadvantage in their new club, but for them there are offsetting political reasons to belong. Since Sweden and Switzerland are both neutrals, they

would enjoy no comparable advantage.

• **Opponents**—All this is academic anyway, since there's no chance at the moment that either the EEC Commission or France would agree to the customs union plan. The Commission fears it would undermine the Six, especially politically; France isn't prepared to accept all-out British competition on top of the German rivalry it is already feeling. Besides, Pres. de Gaulle may think France can more easily be made the leader of Western Europe if he keeps Britain at a distance.

Other opposition would come from the U.S. The State Dept. would undoubtedly be against an EEC-EFTA customs union unless its common tariff were well below the rates planned by the Six. A wider area of discrimination against U.S. goods makes sense for this country only if the general tariff level in Europe would be low enough to more than offset the disadvantage. Even so, some officials would share the Commission's fears of jeopardizing the political unity of the Six.

IV. Full-Fledged Membership

Still a third way to cooperation would be for Britain and at least Denmark and Portugal from EFTA to become full members of EEC. This possibility is under consideration in London, but not for the immediate future. Chances are it won't be seriously pondered unless the other two solutions fail—if the GATT negotiations leave the rival blocs widely split and the French then veto a customs union.

In any case, Britain is held back from the Six by its desire to keep a fairly free hand—subject to consultation with the U.S.—in East-West relations. For the last 18 months, Macmillan has had considerable freedom in maneuvering diplomatically with the Soviets. As part of the Six, Britain would be closely tied to French and German policies.

• **Criteria for Joining**—However, Britain might decide to board the EEC bandwagon if it should continue to move as speedily toward economic and political unity as it has in the last three years. Such a decision will come only if the British feel that EEC has shifted the economic and political balance of power against them in Western Europe. That would leave little choice but to make a drastic change in policy.

Before taking the final plunge, Britain might try to work out some form of associate membership with EEC. It made a gesture in this direction recently by suggesting that it would be ready to join Euratom and the Coal & Steel Community—if invited.

Meantime, Britain will see what it can achieve through GATT and perhaps then through a customs union proposal.

AEC Blocked

U.S. court ruling halting Michigan atom plant upsets AEC procedure, may pose threat to other plants.

The U.S. Court of Appeals for the District of Columbia last week called a halt to completion of Power Reactor Development Co.'s Enrico Fermi nuclear power plant near Monroe, Mich.

In a 2-1 decision, the court ruled on a technical point that halted construction by reversing the usual Atomic Energy Commission procedure. It said AEC could not issue a construction license for the reactor—even though no operating license was included—until the AEC certified that the reactor is safe to operate.

Normally, the AEC issues construction permits to companies to build approved reactor plants while operating research is being completed. Once the plant is built, the company still must apply for an operating license, and it is at this point that the AEC usually requires proof of operating safety. This gives applicants several years' lead time in building reactors.

The court majority based its ruling on Section 185 of the Atomic Energy Act, which, it said, the AEC is misinterpreting. The court said this section makes an operating license almost automatic after the construction license has been issued—therefore, safety must be proved at the time the construction license is granted. This was not done in the case of the Enrico Fermi plant.

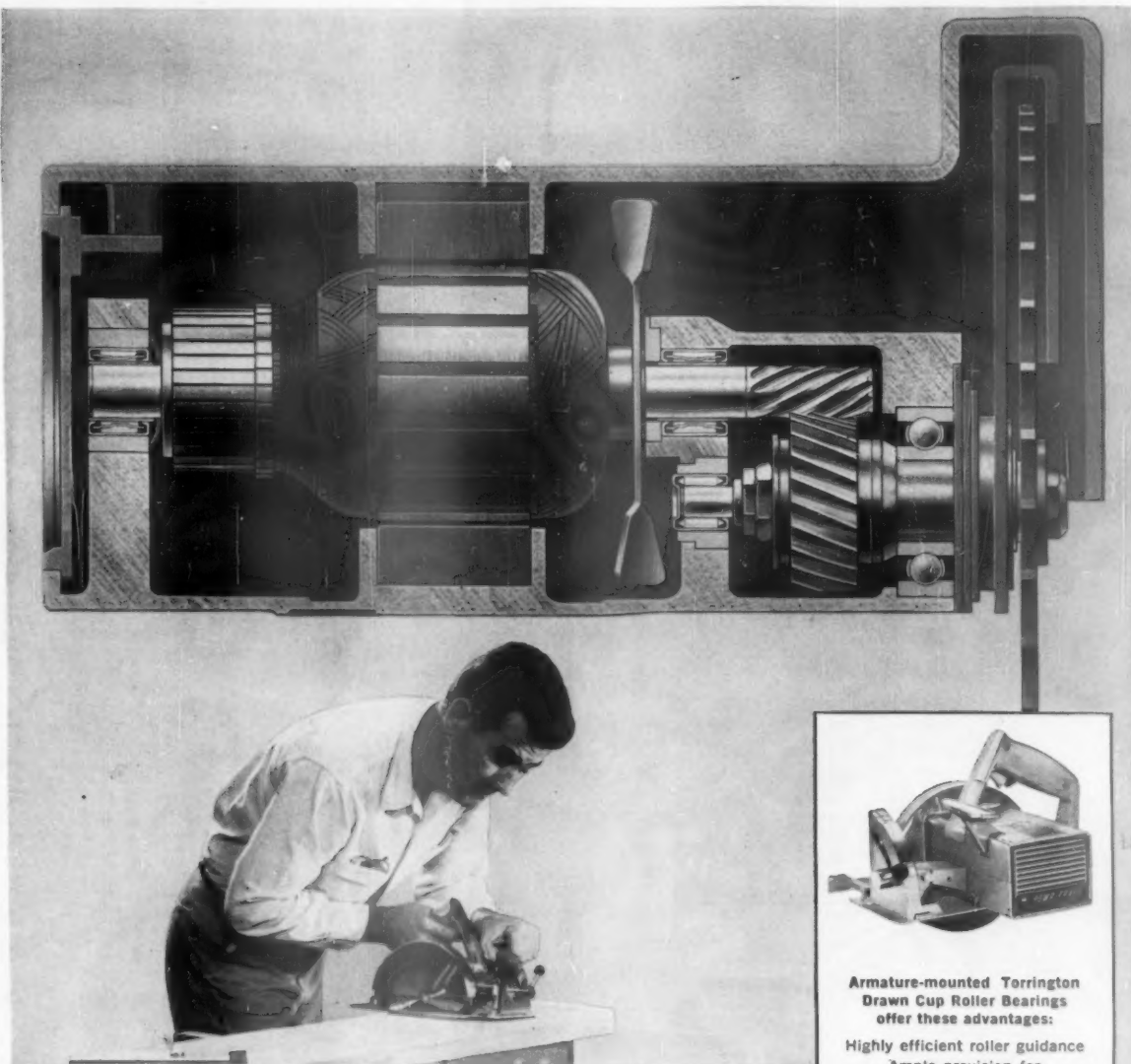
The AEC, however, interprets the construction license as only provisional. It would not grant an operating license until safety has been proven by the applicant, and certified by AEC.

• **Complaint**—The case came before the court on a complaint by three labor unions that PRDC's construction go-ahead, without certified operating safety, was a potential public health hazard. They argued that fear of a potential atomic catastrophe would depress values of nearby homes, cause plants to move.

The court majority ruled that construction itself would not injure the unions or their members. But the court did accept the union's theory that the AEC construction license would lead directly to an operating license.

• **Effect**—AEC has announced that it will appeal to the U.S. Supreme Court. AEC Chmn. John McCone said the court's decision raised issues "of very great importance to the commission and to industry."

The court decision casts a shadow across other private nuclear plant construction totaling over \$350-million.



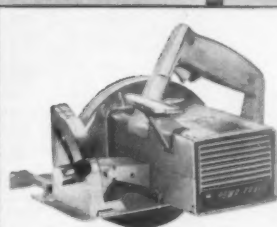
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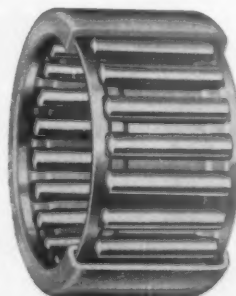
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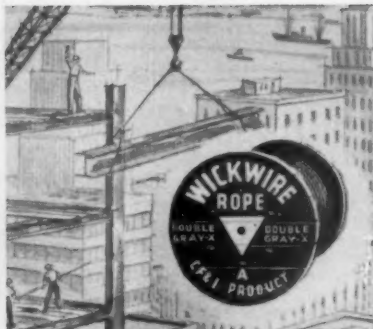


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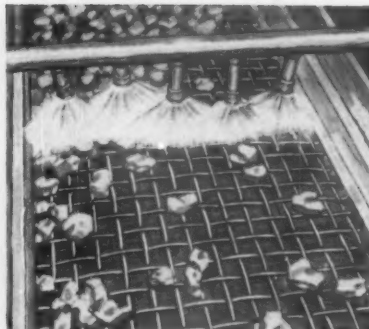
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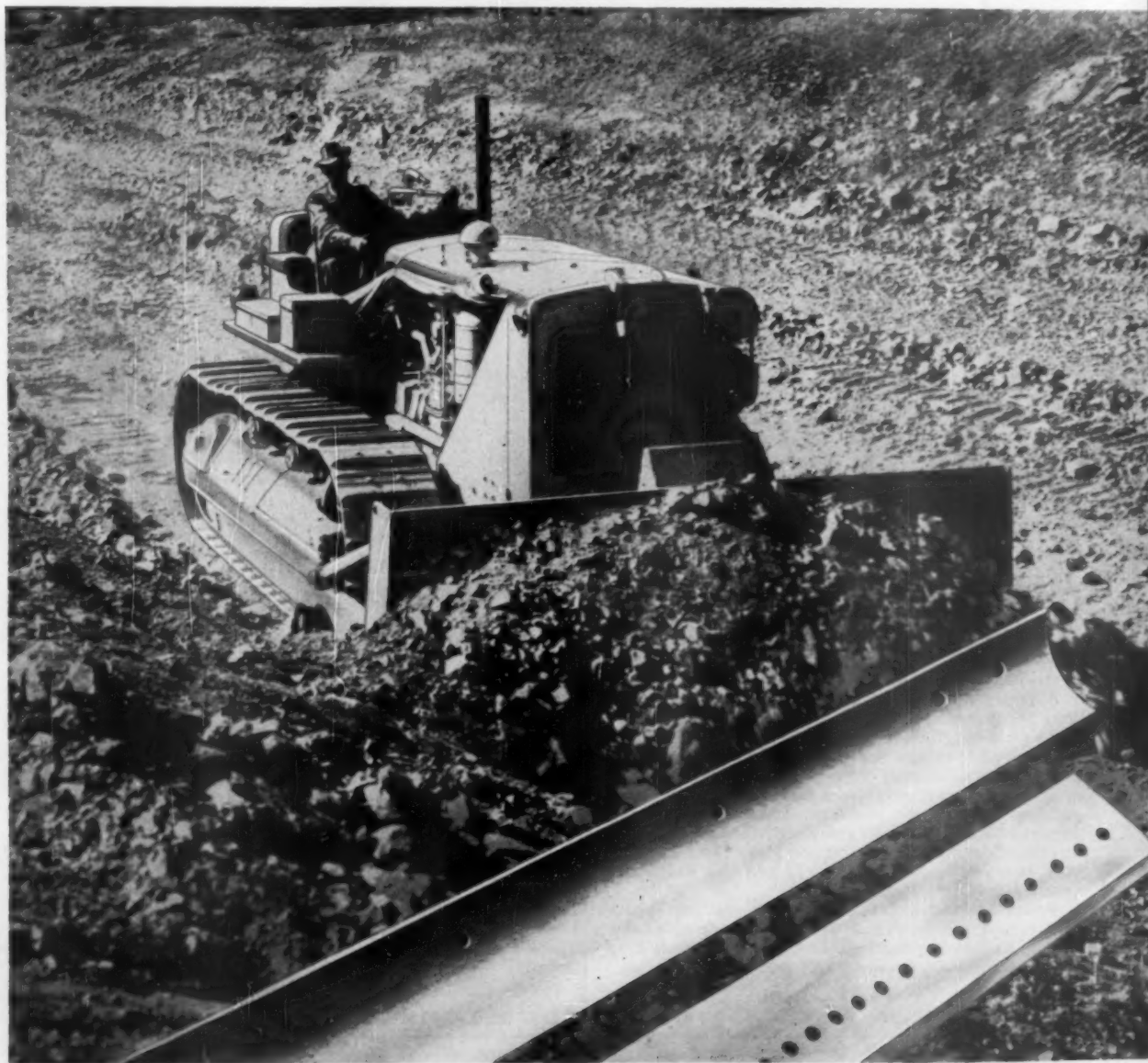
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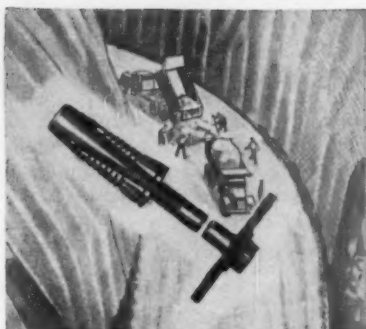


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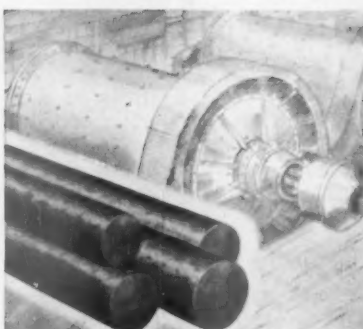


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In Business

• • •

Westinghouse Mates Two Principles, Gets Extra-Efficient Heat Converter

Two distinct methods of converting heat directly into electricity have been combined in a single piece of hardware by Westinghouse Electric Corp. The device links in tandem the principles of a thermoelectric and a thermionic generator (BW—Apr. 9'60, p155).

The Westinghouse dual generator is still strictly experimental; the model produces only a single watt of electricity. However, the company says each of its phases has a theoretical conversion efficiency of 20%. Thus the combined 40% output would be up to the best performance of other types of converters. Westinghouse figures that a pipe-shaped device measuring only 10 in. by 1½ in. could ultimately produce 240 watts.

Commercial applications of the device aren't expected till about 1965. Before that, the small, compact device could be used as a power source in satellites and space ships, and to generate electricity from the heat of small nuclear reactors specially designed for it.

• • •

Electric Equipment Makers Still Split As New Antitrust Charges Are Filed

The electric equipment industry is still divided on what to do about the barrage of antitrust suits the Justice Dept. is firing at it.

This week General Electric, Westinghouse Electric, and 10 other manufacturers pleaded not guilty to seven new charges of rigging prices and allocating sales of transformers and other equipment. But Allis-Chalmers Mfg. Co. pleaded guilty to the four charges in which it was involved. The trial is expected to start early in September.

Previously, Allis-Chalmers had pleaded guilty to two other antitrust charges in federal court in Philadelphia (BW—Apr. 16'60, p29).

• • •

Eastern Air Lines Jet Flights Curtailed by Third-Pilot Dispute

When jets came in, the Air Line Pilots Assn. won contracts with major airlines calling for a third pilot in jetliner cockpits. The carriers assented reluctantly, questioning the need.

That's the background of a work stoppage that cut Eastern Air Line operations this week and threatened to tie up American, Trans World, and Pan American until courts barred further stoppages.

The Federal Aviation Agency recently ordered safety inspectors to sit in the third-pilot seat, behind the captain, during crew checks. ALPA objected to flying "unless full jet crews occupy their normal posts."

When FAA refused to rescind its order, Eastern pilots refused to fly. Eastern complained of an illegal strike; the union denied this but urged crewmen to return, after a court had enjoined the walkout. Most crewmen still reported sick, flight curtailments continued.

Actually, the pilots fear that a shift in third-pilot seating could be used later to bolster employer arguments against the need for the extra man. FAA rules require only two pilots and a flight engineer.

• • •

New Additives Bill Moving Ahead, Can Spare Lipsticks From FDA Ban

The color additives measure that's moving rapidly through Congress—the Senate has passed one bill, the House is ready to vote on another—can spare lipstick manufacturers from this week's ban on coal-tar reds and yellows.

Acting under the existing law, the Food & Drug Administration banned lipstick colors that scientists had found to be toxic, though harmless in small quantities. If the color bill is passed, FDA will be able to specify maximum safe amounts that may be used.

Industry's only substantial objection to the bill is the Delaney amendment to the House version, which bans cancer-causing agents in even the smallest amounts. But industry is pretty well resigned even to this clause.

If the bill is rejected, industry will be able to appeal the FDA ban all the way to the Supreme Court.

• • •

Coffee Break: It's Matter of Timing

Business has pretty well accepted the coffee break as a booster of employee efficiency. But now University of Michigan researchers think that the piping-hot therapy may be wasted if the break is scheduled too soon after breakfast or lunch.

The idea is that coffee gives peak stimulation for a period of 2½ hours, starting about 20 minutes after it is consumed. But if a second cup is taken during the 2½-hour period, its effect will be partly nullified.

• • •

Business Briefs

A "go now, pay later" plan for rail travel has been announced by the Southern Ry. Starting July 1, the road will allow monthly installment payments after a 25% downpayment on all round-trips costing \$50 or more. Service charge will be 2%.

Coffee producing nations in Latin America and Africa this week extended their 1959 production and export quotas for another year. The pact is not expected to solve world overproduction, but is likely to hold prices steady.

Americans spent a record \$2.4-billion on foreign travel last year, 10% over 1958, the Commerce Dept. reported this week. This year, spending is expected to run "well beyond" \$2.5-billion.



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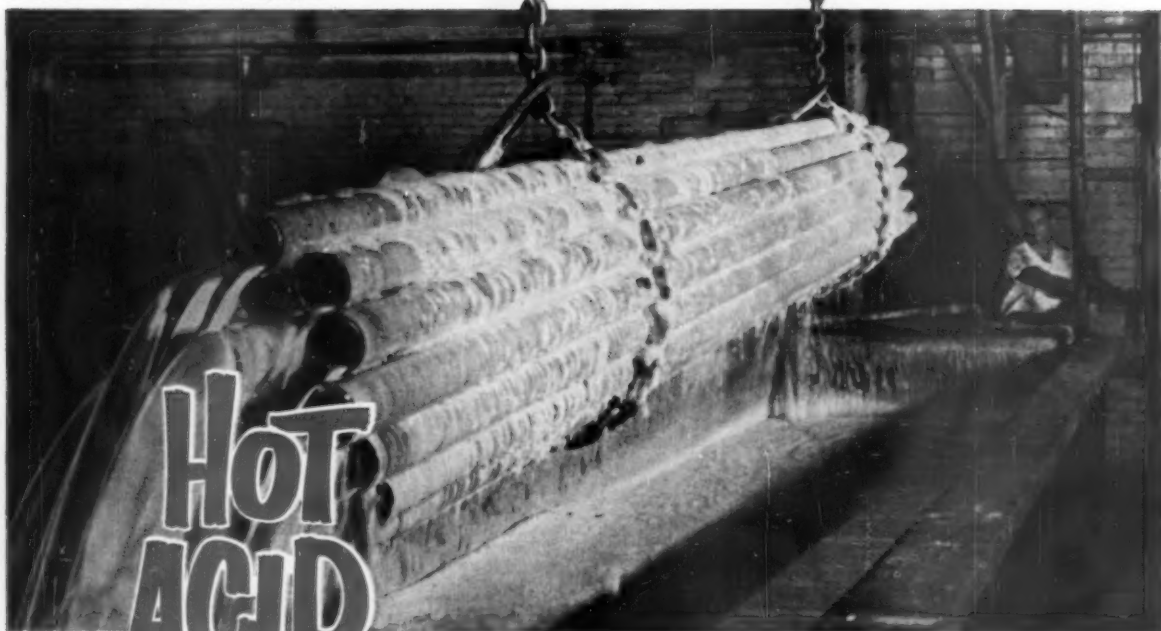
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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
JUNE 18, 1960



The leading Presidential candidates are sharpening the issues. Their next step will be to try to get their own way in the writing of the major platforms—the Democratic resolutions committee meets July 4, the Republican one, July 18. There will be something of a free-for-all among the Democratic hopefuls; Vice-Pres. Nixon will dominate the drafting of the Republican platform.

Nixon will move the party policy statement beyond Eisenhower's policies. His strategy is to praise and stand behind the eight-year record but to veer off on agriculture, health insurance, education, and other so-called welfare issues. The platform will stay clear of any hint of criticism, but rather will argue that circumstances and thinking have changed. Note that Secy. Arthur Flemming of the Health, Education & Welfare Dept. this week put Nixon on the side of progressivism on welfare matters.

Gov. Rockefeller's criticisms have moved Nixon somewhat. The party leaders are not afraid that Rockefeller is really a serious opponent. But, by talking more concretely, they are insuring against any rebellion from the Rockefeller-independent side.

Sens. Symington and Johnson are casting the Democratic Party on the side of increased military and space activities, while steering clear of attacking Eisenhower personally. Sen. Kennedy is being more specific.

Kennedy's main line of attack on Eisenhower-Nixon policies is against "how much has been done," not at the nation's aims abroad. In his Senate speech, Kennedy called for more of everything: more mobile missiles and better ones for brush-fire forces, more long-term economic aid to underdeveloped countries, more money for scientific research.

The main problem facing the Democratic platform-makers: avoiding a fratricidal fight over Negro rights.

The No. 1 Republican problem: writing planks alluring to the Eastern wing without bruising Midwest regulars and the farmers so much that party canvassers will sit on their hands in the fall.

—●—

Interior Secy. Fred A. Seaton aspires to the Vice-Presidency. He has made it plain that he would welcome a chance to be Nixon's running-mate this fall.

Seaton rates as a strong contender—a particularly strong one if the Democrats nominate Sen. John F. Kennedy as their Presidential candidate. With the advantage of acting after the Democratic convention, Nixon and his strategic advisers can move accordingly.

The GOP reasoning is that an opposition ticket headed by Kennedy would pretty well sew up the Roman Catholic and the New England vote, certainly to the extent that Republicans couldn't make a realistic bid in either direction through the second man on their ticket. In this event, both Labor Secy. James P. Mitchell, a Roman Catholic, and U.S. Ambassador Henry Cabot Lodge, like Kennedy from Massachusetts, would become less likely choices for the Nixon ticket.

One other reason for the spurt of interest in Seaton on the GOP slate if Kennedy heads the Democratic ticket: Seaton, from Nebraska, might bolster Republicans in the Middle West, where suspicion of Kennedy, the Easterner, is presumed to be highest.

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
JUNE 18, 1960

Other names figure in the Vice-Presidential gossip. Sens. Kenneth Keating of New York and Hugh Scott of Pennsylvania are possibilities. (Scott's chances are weakened because the GOP would lose a precious Senate seat if he should go on the ticket and win; Gov. Lawrence, a Democrat, would appoint a Democrat to replace Scott.) There is talk that Nixon might like Charles Percy, board chairman of Bell & Howell Co. of Chicago and chairman of this year's GOP platform committee. Percy is mentioned frequently, too, as Commerce Secretary or for some other Cabinet job if Nixon wins. The Old Guard Vice-Presidential prospects—Sen. Barry Goldwater of Arizona and House leader Charles Halleck of Indiana—aren't given much chance.

Democrats hope to fatten up their majority in the Senate. With a 65 to 35 margin now, they cannot lose control of the upper chamber—even if November should bring a Republican landslide.

Democratic Rep. George McGovern, a one-time history professor, is given a chance to beat Sen. Karl E. Mundt in South Dakota.

Democratic Gov. Herschel C. Loveless rates a strong contender for the Iowa seat being vacated by Republican Sen. Thomas Martin.

GOP Sens. Gordon Allott in Colorado, Andrew Schoeppel in Kansas, and Carl Curtis in Nebraska are other prime targets for the Democrats.

Republicans have some Senate hopes of their own, but they are not so high. GOP chances are figured best in Wyoming and Montana, where Democratic old-timers Joseph C. O'Mahoney and James E. Murray are retiring, and Michigan, where Democratic Sen. Pat McNamara is up for reelection. Republican strategists have less hope in Rhode Island, where Sen. Theodore F. Green will retire.

The big 1-2-billion-bu. wheat crop is being harvested as Congress tinkers with a wheat price support bill that has a dim future. This week, harvesters in good weather are working northward across Oklahoma toward Kansas, Nebraska, and the Dakotas. (Oklahoma is getting a 105-million-bu. harvest, third largest in history.)

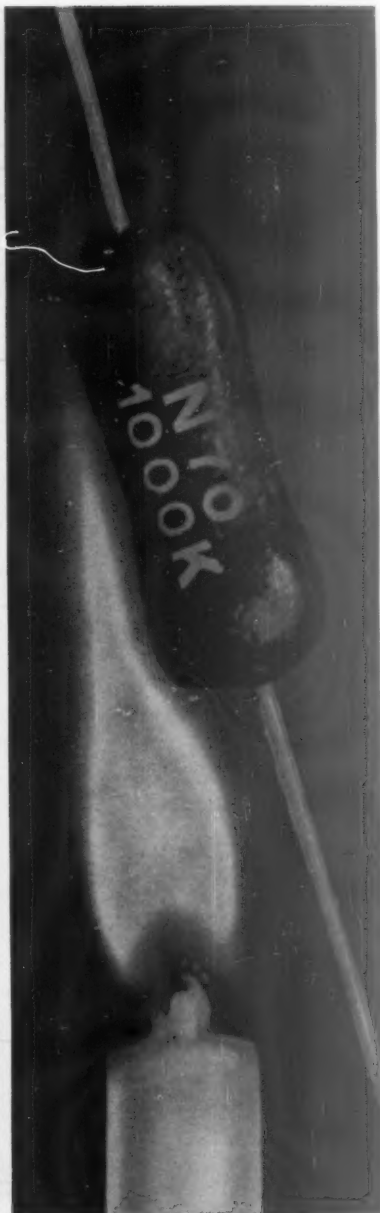
Growers are guaranteed 75% of parity, about \$1.78 a bushel. But there still is a lot of farm depression talk, farmers telling themselves their economic well-being hasn't kept up with the rest of the country. Republicans are sorely worried about a Democratic trend in the Wheat Belt.

Eisenhower is put in a box by the Senate tax bill. He wants continuation of the 52% corporation income tax, the Korean excises, and increase in the debt limit. He opposes repeal of the 10% tax on telephone and telegraph and passenger travel, which would lose \$750-million in revenue. In the end, the repealer may be dropped; if not, Eisenhower will veto it and hope for a simple extension of the tax and debt legislation.

The minimum wage bill is being lobbied intensely. Business groups, mainly from the retail trades and the service industries, have mounted one of this year's biggest pressure campaigns on Congress in an effort to beat either a rise in the \$1 hourly minimum or an extension of coverage.

An example of the campaign's scope: The National Restaurant Assn. has had at least one of its members from every Congressional district in every state come to Washington to work on senators and House members.

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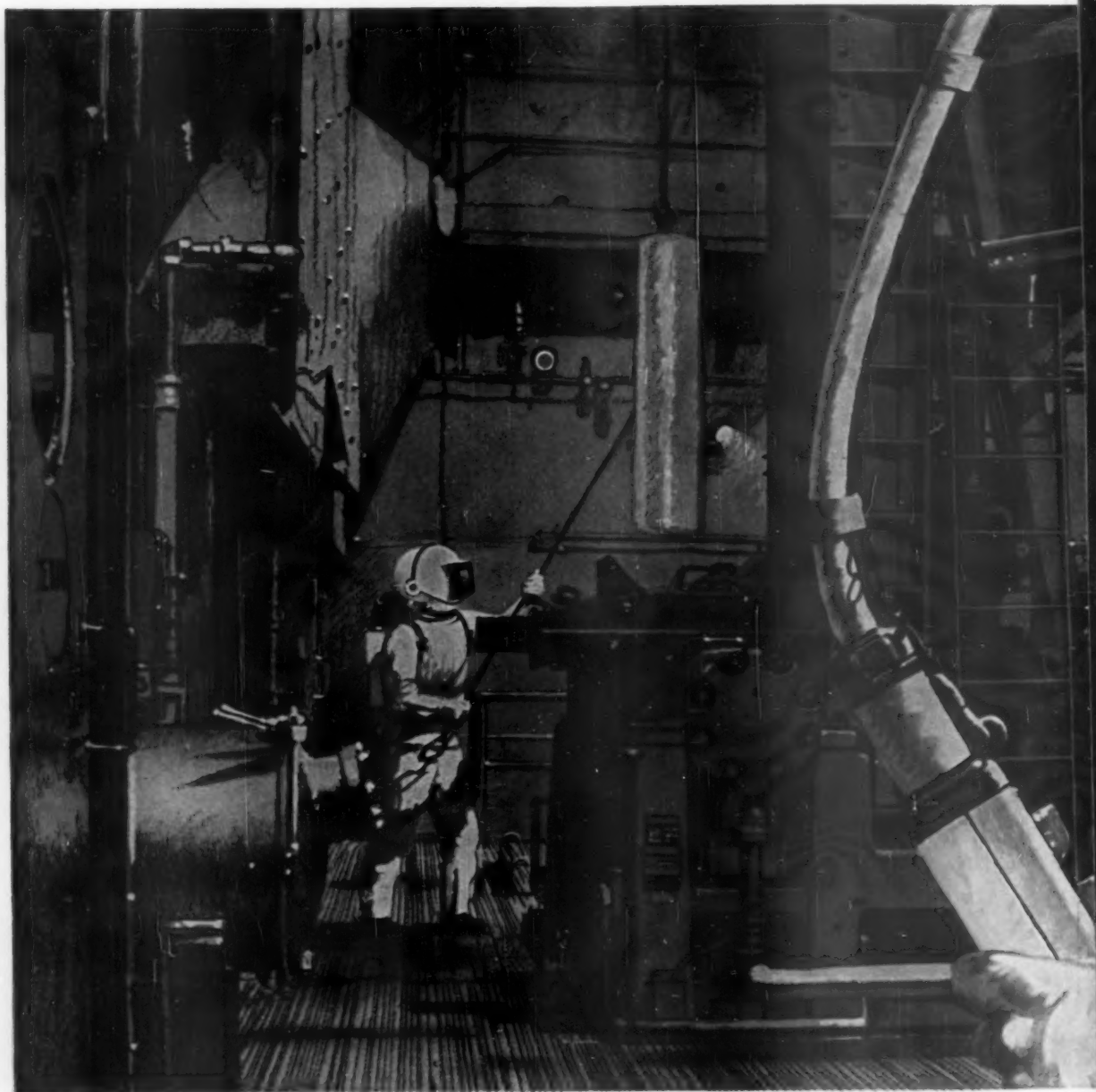
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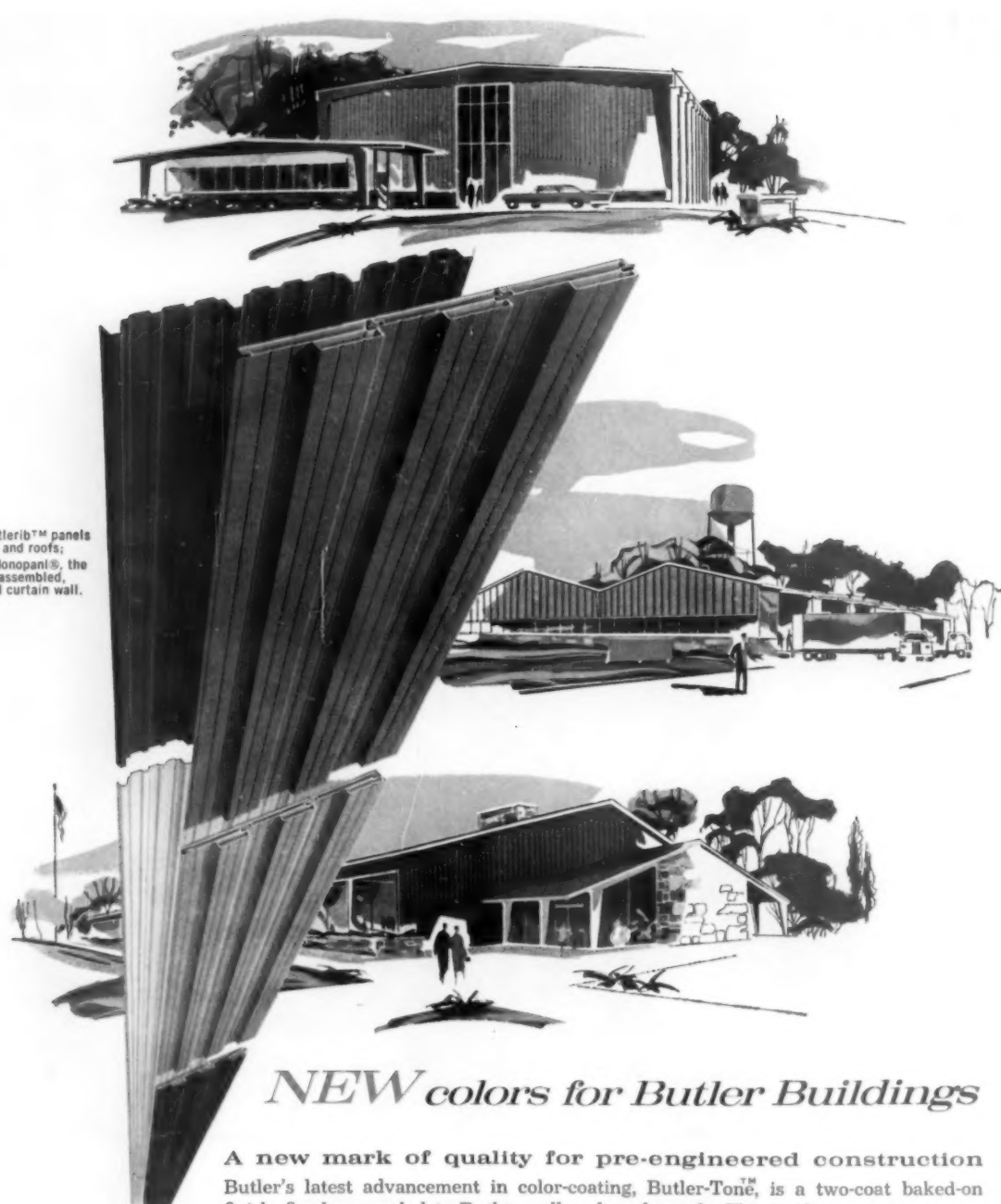
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LABOR

Trouble in Aircraft-Missiles

● Strikes and threats harass industry though major settlement at North American Aviation eases tension.

● UAW accepts layoff gains there, with wages unchanged until next year, thus creating a pattern.

● Meanwhile, there's a lull on rails, but disputes could arise at Firestone and General Electric.

Strikes and strike threats continued to harass the nation's aircraft-missile industry this week despite a major settlement negotiated peacefully by North American Aviation, Inc., and the United Auto Workers.

The North American-UAW agreement apparently eased a bargaining logjam in the industry by establishing terms for feverish last-minute negotiations as strike deadlines neared for 50,000 workers. At midweek, progress was evident in negotiations involving the Convair Div. of General Dynamics. One of a number of other major employers at bargaining tables reported "encouraging but not conclusive" developments.

North American and UAW agreed on a two-year contract that leaves wages unchanged in 1960 but sets up a new plan for layoff benefits—one of labor's main goals in the industry. The pact which covers 24,000 employees in plants in three states provides for fringe increases with an estimated value of 5¢ an hour this year and a general 7¢ an hour raise in June, 1961.

• **Escalator**—Cost-of-living wage adjustments will continue. A nickel of the present 6¢ an hour "float" will be incorporated into base pay. Among the fringes:

• Workers laid off four consecutive weeks will receive a lump-sum "extended layoff" payment amounting to \$50 for each year of service, up to a maximum \$500. This is to be paid as a supplement to state unemployment compensation.

• Pension payments will go up; those already retired will receive \$2.35 (or 60¢ more) per month for each year of service, and those retiring in the future \$2.40 per month for each year of past service and \$2.50 for each year of future service.

• Insurance plan revisions will increase hospitalization insurance benefits.

• Premium rates will be paid for any work done on Saturdays, regardless of the number of hours worked in the week.

• **Other Companies**—Bargaining be-

tween the UAW and International Assn. of Machinists—working closely together this year—and other key employers reached deadlines this midweek.

IAM had strikes scheduled against the Lockheed Aircraft Co.'s missile and space operations in California, where 10,000 are employed, and against Douglas Aircraft Co. Thor missile plants in California, where 12,000 are involved. Machinists locals turned down early company offers (no raise in 1960, 7¢ in 1961) but new efforts were being made to find compromise terms.

UAW had walkouts set for midweek against other Douglas operations in California, Oklahoma, and North Carolina, but a settlement was reached.

Meanwhile, UAW members, working without a contract since May 17, adopted "hit and run" strike tactics against Chance-Vought's aircraft plant at Grand Prairie, Tex.; their new strategy means that workers "might enter the plant one day and not the next," a union spokesman said. The UAW local said that it would guarantee to work only on Fridays; that's because Fridays are paydays.

A Chance-Vought official replied that management "does not have to or intend to tolerate any tactics destructive to our plant, property, or equipment or that interfere with orderly production."

The UAW local called a meeting during work hours on Monday to approve the policy of harassment as "more effective than a full strike." The union said 90% of the plant's 3,700 workers were off the job; Chance-Vought said more than 1,000 worked in defiance of the union.

Another union, the independent Engineers & Architects Assn., also has adopted harassment tactics—a walkout every Monday—in a wage dispute with Convair in San Diego.

Meanwhile, labor troubles also were coming to a crisis point this week for Aerojet, Boeing, Bell Aircraft, and a number of other companies.

• **Missiles Worries**—Generally, the greatest concern over bargaining in the

industry has centered on disputes involving missiles rather than aircraft.

Two weeks ago, IAM missile installation and checkout men struck Convair field operations from Cape Canaveral, Fla., to California's Vandenberg Air Force Base—and tied up testing and firing of the Atlas, the country's operational intercontinental missile (BW—Jun. 11'60, p142). The government didn't rush in to intervene through Taft-Hartley or other steps.

With Convair's main plant operating in San Diego—on a "semi-strike basis," the union said—the government remained calm, to "wait to see what develops."

With pressure growing for a direct settlement, IAM and Convair entered around-the-clock bargaining.

• **Other Industries**—The aircraft-missile industry's collective bargaining and strikes or threats of strikes held government attention as—for a time—rail bargaining troubles appeared to have eased a bit (page 54) and other major negotiations were only a cloud on a distant horizon.

The clouds could darken rather quickly:

The United Rubber Workers has served reopening notices on Firestone Tire & Rubber Co. and other major rubber firms, as the first step in a 1960 campaign for wage increases for 100,000 workers. The union wants a general wage increase, the correction of claimed wage inequities, and "protection" against the adverse effects of automation and other technological changes.

The International Union of Electrical Workers met with General Electric for exploratory talks to "define the issues" to be met in bargaining this year. The present GE contracts expire Oct. 1. IUE asked for talks "well in advance of the Oct. 1 expiration," to strengthen the possibility of an agreement before the deadline without a "discussion of strikes and lockouts." IUE has a long list of demands, including a general wage increase (minimum 3½%) and an additional 25¢ an hour for skilled workers.

Meanwhile, four AFL-CIO unions bargaining with companies comprising 95% of the potash industry negotiated new contracts with wage increases of 8¢ an hour the first year, 9¢ the second year. The unions reported the "package" value of the two-year settlement, including fringe gains, at about 24¢ an hour. The new contracts eliminate incentive pay systems. **END**

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Show Goes On—So Does Strife

Reopening of Broadway theaters is bright spot in the entertainment trade's continuing labor troubles.

Broadway put on her make-up (picture) and theater marquees smiled once again along the Great White Way this week as Actors' Equity Assn. and the League of New York Theatres patched up their quarrel after a week-long shutdown of New York shows.

Although the settlement was moderate by most standards—both sides greeted it as "a victory"—it contributed little toward solving the entertainment industry's basic problems. The shutdown, however, with its three casualties—*Duel of Angels*, *Finian's Rainbow*, and *The Andersonville Trial*—spotlighted for a time the problems of high costs, great risks, and dwindling audiences.

• **In the Same Boat**—Significantly, these problems are not confined to Broadway but are evident elsewhere in the entertainment industry:

• **Hollywood movie-making activity** is far below its usual level. A 21-week-old Writers' Guild of America strike against the Assn. of Motion Picture Producers just ended and a month-long Screen Actors' Guild walkout

(BW—Mar.12'60,p34) resulted in only one-third of the usual number of picture starts from Mar. 7 to June 6. MGM has not started a movie since the middle of February, and Columbia hasn't started one since the middle of March.

• **Television film shows** for the fall may be held up by a WGA strike against the Alliance of Television Film Producers for a share of royalties from sale of TV films to foreign markets. Unless recently resumed negotiations settle the issue soon, fall programming may be seriously impaired.

• **Broadway wiseacres** are betting that at least two—and possibly three—more theaters are fated to be torn down and the space utilized for parking lots before the year is out. Some Broadway buffs had theater owners tagged as villains in last week's shutdown; they said the owners were making the only real money in the business. But even some of the alleged money-makers apparently do not find a steady enough return to warrant staying in.

• **Broadway Run**—The shutdown, fortunately, did not last so long as initially feared (BW—Jun.11'60,p68). Nineteen of the 22 shows closed down by the blackout reopened Monday despite the ticket sale losses of \$1-million and an actors' loss of \$260,225 in salaries.

A settlement was reached late Thursday, June 9, after City Labor Commissioner Harold Felix met with Burton A. Zorn, League attorney, and Herman Cooper, Equity lawyer, and worked out an acceptable compromise.

The producers said they could not reopen for the weekend because musicians are paid on a weekly basis and would not play Friday and Saturday on a per diem. This, they say, illustrates one of the problems that plagues the entertainment industry; "the show must go on" is, apparently, a dying tradition.

• **Settlement Terms**—The agreement pared down producers' costs somewhat while granting Equity its pension demand as well as hikes in actors' weekly minimums, rehearsal pay, and road salaries. Producers will contribute to a pension fund 1% of the actors' payroll the first year, 2% the second and third years, and 3% the next three years.

Theater owners—under a compromise suggested by John Shubert, who operates 18 Broadway theaters—will share the cost of the plan by contributing 1% a year over a six-year period. The question of whether contributions should be made for actors earning over \$500 a week will go to arbitration.

Minimum Broadway salaries will be



CHORUS GIRLS of the musical, *Fiorello*, go back to work applying their make-up Monday night after a shutdown of more than a week.

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raised from \$103.50 to \$111 in the first year, to \$112.50 the second year, to \$115 the third year, and to \$117.50 the fourth year. Producers had offered a straight \$110 a week; Equity's original demand called for \$118 at the end of the third year.

Rehearsal pay was jumped from \$75 to \$82.50 and by the end of the fourth year it will be \$97.50. Road salaries were raised from \$135 to \$145 and will go up again the last two years of the contract to \$150.

• **More to Come**—The terms did little to encourage producers and theater owners in the hope that a tough stand against Equity would help them hold a firm line in negotiations this fall with the musicians and next year with the stage hands.

Meanwhile, both sides, having clasped hands, are urging that the city repeal a 5% tax on theater tickets that brings the city \$2.5-million a year. Mayor

Robert F. Wagner has stated that the appeal to bolster the theater business "merits consideration by the appropriate city bodies."

• **Film Slump**—Similar tax juggling won't help Hollywood or TV film producers. The writers' and movie actors' strike has accentuated a film slump. One-third of the members of the International Alliance of Theatrical Stage Employees are out of work—a drop of roughly 5,000 in the normal work force for this time of year.

Movie studios acknowledge that management used the strikes as an opportunity to trim some fat off production costs. This is likely to have repercussions at the end of the year when IATSE's contract expires. So will the victory achieved by the actors in getting a cut of TV profits on films made after Jan. 31, 1960. This will be so much additional push behind IATSE when its time comes to talk turkey.

New Rail Wage Recommendations

Presidential emergency board proposes a 5¢-hourly increase for nonoperating rail employees on July 1.

A Presidential emergency board in the wage dispute between railroads and nonoperating unions last week recommended a 5¢ pay increase in a contract running into the late fall of 1961. At the same time, it urged that the parties set up "joint bodies for continuing study of common problems" in the industry.

The board noted that the parties have not been able or willing to grapple with "fundamental problems" such as:

"... the compression of the wage scale among nonoperating employees, arising from across-the-board cents-per-hour increases; the large backlog of grievances and the unduly long time required to process cases; the absence of measures to deal with the rapid rise of unemployment and layoffs; and the failure to develop joint machinery to explore the problems of the industry as a whole."

The board headed by John T. Dunlop of Harvard said that the proposals of Pres. Eisenhower and Labor Secy. James P. Mitchell for labor-management cooperation on an industry basis "merits adoption in the railroad industry."

• **The Board's Recommendations**—On wages, the board recommended that some 600,000 off-train workers in 11 unions should be given a 5¢ an hour wage increase July 1, 1960, and a number of fringe concessions in lieu of an increase in 1961. The 5¢ suggested as a raise this year approximates the 2% increase for 1960 established as a pattern for the operating crafts (BW—Jun. 11 '60, p.79).

The fact-finders also proposed:

• Improvements in the health-welfare program next March 1, to provide benefits for dependents and to extend benefits for three months during layoffs.

• Railroad-paid life insurance for employees.

• Liberalized rules for paid vacations and holidays. The fringes are valued at 5¢ to 6¢ an hour.

The carriers and the unions had agreed, in advance, to drop an existing cost-of-living clause; the board recommended that, under the circumstances, 17¢ in c-of-l raises granted under the old agreement should be frozen into basic hourly rates.

The nonoperating unions and the roads are not committed to accept the emergency board recommendations. If either rejects them, a strike would be legal after July 8, 30 days after the recommendations were made.

• **No Cheers**—Neither side was particularly happy with the board's recommendations, which cut, very roughly, halfway between the positions of the opposed parties. The carriers protested that the wage increase alone would cost them \$58-million a year. Nonoperating unions complained the raise should be "substantially" more.

Meanwhile, the carriers called on five train-operating unions to begin negotiations on the railroads' proposals to overhaul and modernize work practices. Theodore Short, spokesman for the carriers, said that "current wage settlements in the industry make it imperative to obtain relief from feather-bedding waste." **END**



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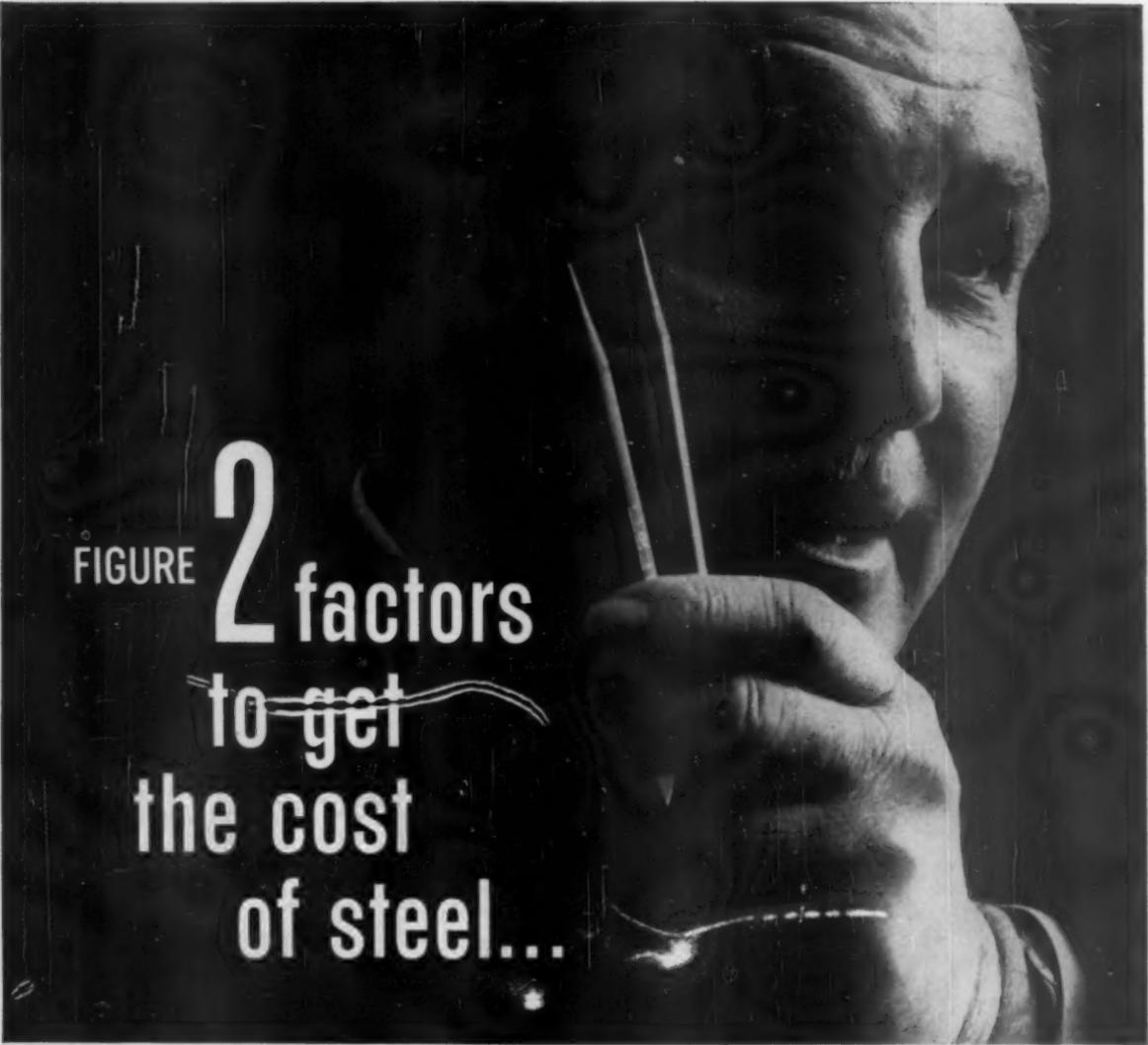


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Minimum Wage Revision Gains

Bill to increase floor under pay from \$1 to \$1.25 in three steps and to extend coverage to 4.5-million more workers appears likely to win approval on Capitol Hill.

Congress has come to grips with a broad new federal minimum wage bill. Its backers appear to have enough muscle to lift the current \$1 wage and also to bring Main Street retail and service store employees under its coverage.

This double revision—in the minimum and in coverage—would be the biggest advance for the wage-hour law since it was passed in 1938.

Although revision prospects are by no means certain, a "stepladder" bill to boost the current rate to \$1.25 and to extend coverage to 4.5-million workers now specifically exempt is gaining ground on Capitol Hill. The final test is expected to come within two weeks.

• **Probable Provisions**—If a bill is finally passed, it probably will look a great deal like this:

- A \$1.25 minimum wage to be reached in three steps: an immediate raise from the current \$1 to \$1.15, a boost to \$1.20 a year from now, and a further increase to \$1.25 two years from now.

- Extension of coverage to 4.5-million workers, mostly in retail and service trade chain stores. Here again, wage and overtime improvements would be made in a series of steps.

This is the heart of a bill due to go through the House Labor Committee this week. The Senate appears likely to follow the House lead even though the Senate Labor Committee has prepared its own "stepladder" version of minimum wage legislation.

The compromise approach in the House bill is what union leaders are now banking on for victory. The White House is expected to approve it—if it passes.

- **Pitfalls**—However, there still are pitfalls. Extensive opposition by employer groups—so effective in past years—is centered now on this compromise version. If a tangle develops, the proposals may be tied up in Congress so that no final action can be taken by adjournment, expected about July 10.

The bill's proponents feel they've found the answer to both Congressional apathy and opposition to a new minimum wage. By offering an escalator-type bill, they believe a modification can achieve what minimum wage proponents want but without too much sting for the opposition.

- **Labor's Attitude**—AFL-CIO leaders, who have prodded Congress for the past

five years to hike and extend the minimum wage, have made it emphatically clear that they will take the step-by-step bill since it goes a long way toward achieving their aims—even if it takes some time getting there.

To push the compromise along, they even sought modification of two more liberal minimum wage measures by Sen. John F. Kennedy (D-Mass.) and Rep. James Roosevelt (D-Cal.), to increase the chances of quick action.

- **Republican Opponent**—When the Senate Labor Committee gets the measure, late this week or next, committee member Barry Goldwater (R-Ariz.) says he'll "offer more than 50 amendments" before it is finally voted on.

What the Senate does may depend on what the House does—and how quickly it does it.

The House could turn out to be a stumbling bloc for fast legislation. Once the House Labor Committee acts, the wage-hour revisions must still clear the Rules Committee to come to a floor vote. If it does and a bill is passed, the Senate is likely to go along with whatever comes out, particularly if time is running out on the session.

Congress didn't begin to move in earnest on the minimum wage until the compromise escalator bill came up.

- **Unenthusiastic Labor Dept.**—This isn't what the Eisenhower Administration had in mind when Labor Secy.

James F. Mitchell testified before Congress earlier this year. He proposed that the law be amended to cover some 3-million retail and service workers and asked for a "moderate" increase, perhaps to \$1.15, though he did not set a figure.

Mitchell's Labor Dept. is privately unenthusiastic about escalating to \$1.25 because it is responsible for a year-to-year assessment of the effects of the minimum wage law.

If the Roosevelt bill passes, as is, the minimum wage requirement would mean an immediate pay raise for 860,000 workers being brought in for the first time and the first step-up, to \$1.15, would bring more pay for some 2.4-million already covered.

- **New Coverage**—Those newly covered would come under a different escalator on wages and on the law's provisions for overtime pay after 40 hours. They would receive a \$1 minimum for the first year, \$1.20 for the second, and then \$1.25. Their overtime payments would also come on a stepladder basis, starting at 48 hours and reaching 40 hours after four years.

The first Roosevelt bill called for a flat \$1.25 an hour and extended the law to some 8-million workers. The trimming came mainly among retail outlets, by limiting coverage to companies doing \$1-million in gross annual business and not \$500,000 as originally proposed.

As a result, the bill would cover some 3.4-million in retail trade; 286,000 in retail services; 128,000 in laundries; 107,000 in transit, 32,000 in seafood processing; 100,000 seamen; 40,000 loggers, and 32,000 switchboard operators.

Incentive Plans Make Little Headway

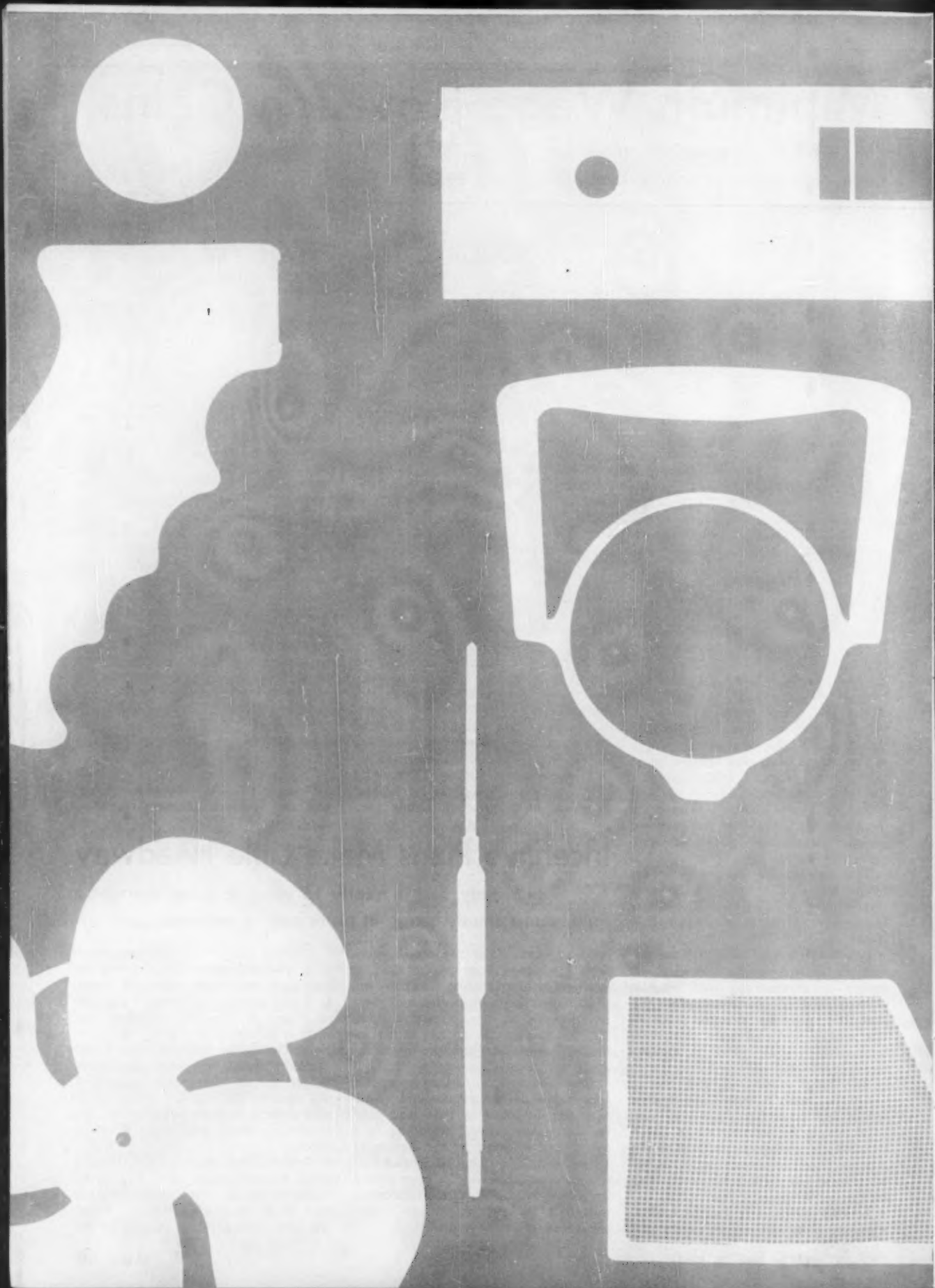
BLS study, first in nearly 15 years to cover the whole field, shows small change in participating workers.

Management's increasing concern with production costs has resulted in new and serious thinking about the use of incentive wages—through which extra pay depends on extra efforts. But, so far, the number of workers under incentive systems has shown no significant gains.

One in every four working in production and related departments of manufacturing industries in 1958 were paid on an incentive basis, according to a survey just reported by the Bureau of Labor Statistics. The BLS study—its first comprehensive one in more than a decade—showed 27% of manufacturing industry's 11.3-million workers under some form of incentive plan.

This was roughly the same proportion as in 1945-46, when BLS surveyed the industries on much the same basis. L. Earl Lewis of the Bureau's Division of Wages & Industrial Relations said there is no reason to expect "this comparatively stable situation" to change markedly during the next five years. Wider use of labor-saving equipment will increase the number of incentive-plan workers in some fields, reduce the number in others, with a net balancing effect.

- **Types of Plan**—According to the BLS study, incentive wage plans most commonly in use are based either on piece rates or on production bonuses. Piece-rate plans link earnings directly to the



What 3 things do these parts have in common?

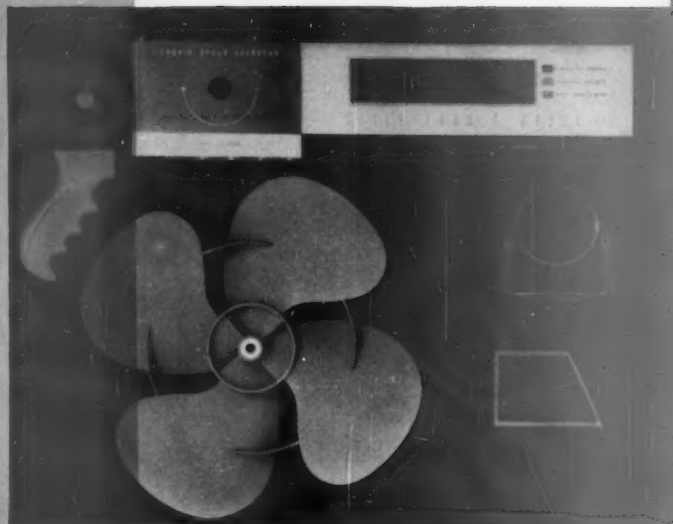
They perform better. Yet they cost less. And they are all molded of plastics.

The exhaust fan blades have a molded-in metal bearing, and are unaffected by corrosive fumes. The washing machine filter not only costs less to make, it also licked a rust problem. The one-piece phonograph spindle cap simplified a complicated assembly, while maintaining tolerances of $+.003$ and $-.000$.

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total number of units produced by an individual or the group in which he works. The production bonus system provides an extra payment for production that exceeds a quota or that is done in less than a standard time. It, too, can be on either an individual or a group basis.

Incentive coverage usually is limited to workers who are engaged in direct production. However, some group bonus plans are now extended to give a share of extra earnings to workers who are only indirectly connected with production, such as maintenance and custodial employees.

BLS found that nearly all incentive plans include a rate guarantee if production standards are not met.

• **Who Is Covered**—Coverage varies by industry—and within industries. The number working under incentive plans ranged downward from about 70% in the men's and boys' apparel industry and the leather footwear industry to fewer than 10% in a number of large industries, including aircraft and aircraft parts manufacturing.

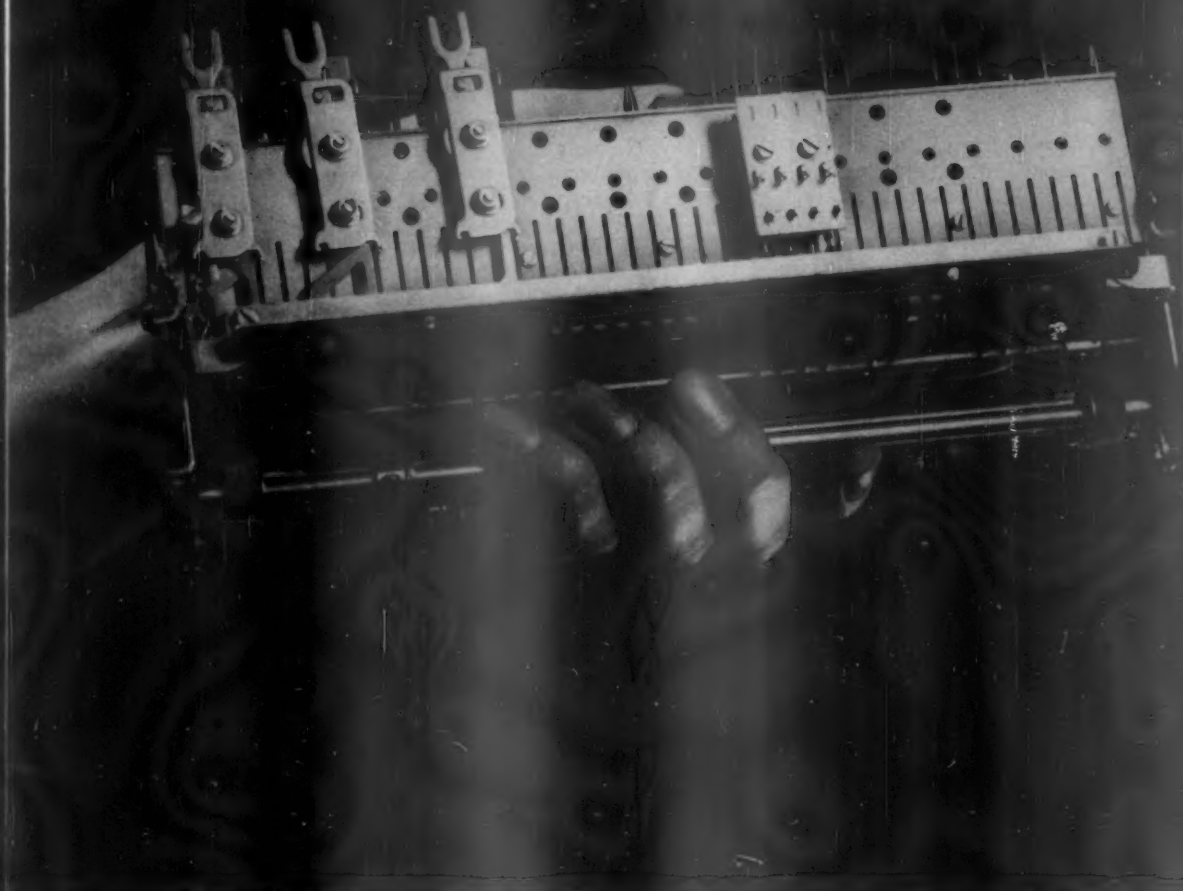
The use of wage incentives is comparatively high in the cigar industry, in knitting mills, in part of the women's apparel industry, and in steel's furnaces, works, and rolling mills. Of about 408,300 workers in the steel industry in mid-1958, about 245,000 were paid under incentive plans.

BLS' survey showed that the auto industry's 716,800 workers were largely on an hourly pay basis; including auto plants and parts plants, 13% of all workers were paid on an incentive basis—but only a scant 2% of those working in the auto assembly plants were.

Generally, the industries in which a relatively high proportion of time is spent handling materials are likely to use incentives; control over production rests to a considerable degree with the worker. On the other hand, the extent of incentive plans is usually low where output is machine-paced and incentives would hardly increase production.

• **Little Uniformity**—The extent of incentive pay plans has a high degree of uniformity in some industries, not much in others. In the apparel industries, there is a pattern of coverage that seldom varies appreciably: Sewers are under incentive pay plans; cutters aren't. In other industries, notably metalworking, there is little uniformity. Practices depend on such factors as the degree of standardization of products and work processes, management views on incentives, and—importantly—union-management relations.

BLS found wide regional differences in incentive wage plan coverage. Such plans are less likely to be used on the Pacific Coast. For instance, 8% are covered by incentives in the San Francisco area, 43% in Milwaukee. **END**



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In Labor

• • •

Seven Unions Form New Association To Counteract Airlines' Mutual Aid Pact

Seven unions representing most of the country's airline employees have set up a new Association of Air Transport Unions as an answer to the airlines' mutual aid agreement put into effect in October, 1958. The seven unions are committed to give "all possible and practical moral and financial support" to any AATU union that strikes.

The association includes the Air Line Pilots, Flight Engineers, Machinists, Transport Workers, Air Line Dispatchers, Railway Clerks, and Auto Workers.

In late 1958, during contract bargaining, six airlines agreed that if any one was struck, the others would share with it any extra income due to the struck line's shutdown. Capital was struck. It received aid from Eastern, American, Pan American, Trans World, and United. The mutual aid pact has continued in effect, with Civil Aeronautics Board approval.

Braniff, National, and Northwest-Orient have filed a formal petition to join the carrier alliance. Continental reportedly plans to.

• • •

Teamsters Asks Court to Protect Its Stake in Miami Luxury Hotel

The International Brotherhood of Teamsters last week asked the federal court in Miami for a receivership or foreclosure to protect a multi-million-dollar investment in a plush oceanfront hotel, the Everglades. The union charged the hotel owner, Vaughn C. Connelly, hasn't made payments this year on IBT mortgages, owes the union \$4,350,000.

Connelly opposed a receivership, argued the union money isn't in danger. The hotel is appraised at \$8-million and Connelly hopes refinancing will help it out of "financial distress" blamed on alterations that cost more than estimated and took a year longer than expected.

Trustees of three areawide Teamsters pension funds lent Connelly \$3.3-million in January, 1959, and \$1-million more last August. The trustees complained that Connelly defaulted on payments of \$36,000 a month.

The Everglades Hotel investment is one of a number of major real estate loans made by IBT welfare funds in Florida.

• • •

UAW Public Review Board Gets Reply From Union on Goldwater's Charges

The United Auto Workers Public Review Board is still juggling the hot potato the union flipped to it last March in asking the board to review charges made against UAW by Sen. Barry Goldwater (R-Ariz.) and colleagues (BW-Mar.12'60,p43). The review board asked UAW

for a bill of particulars on the charges. It has just received a reply.

In it, Walter Reuther, president of UAW, says that in a letter of Feb. 20 he "advised the Public Review Board that the [McClellan Committee] minority report . . . was a politically inspired document containing charges against our union that 'are either unfounded, untrue, or based on distortion.' For this reason, we are obviously not in a position to supply the Public Review Board with 'a detailing of the charges' . . . as requested. The only thing we can do to attempt to comply with your request is to forward to you a copy of the official final report of the Senate Select Committee."

The board will consider the reply—and charges—within the next few weeks.

• • •

Growing Labor Vote in Mississippi Noted As Union Shop Ban Passes by 2-1 Margin

Mississippi voters last week ratified a "right to work" amendment to their state constitution but the outcome of a special election showed a surprisingly strong opposition vote in the predominantly rural state. The amendment writing an existing union shop ban into the constitution won by a 2-to-1 margin, much less than the 5-to-1 predicted.

The growing strength of organized labor in Mississippi showed up in the three counties in which industrialized Meridian, Laurel, and Pascagoula are located. In these, the "right to work" amendment lost overwhelmingly.

State AFL-CIO challenged the balloting as a "quickie election" without adequate time for preparation.

• • •

Bitter Disputes Feared as AFL-CIO Moves to Organize Farm Workers

AFL-CIO has chartered an Agricultural Workers' Organizing Committee and pledged manpower and financial support for a campaign to unionize farm workers this summer. The drive centered in the San Joaquin and Sacramento Valleys of California could mean months of bitter labor disputes for growers. Growers had expected troubles—but not so soon.

Strikes already have spread through the fruitlands, seriously crippling picking operations in many cherry, apricot, and peach orchards. The labor disputes have increased losses caused by extreme hot weather. One grower said that prematurely ripened fruit left on trees in a struck orchard cost him \$250,000.

California growers appealed to Labor Secy. James P. Mitchell for help last week, complaining that labor organizers were "trumping up disputes" in order to prevent growers from bringing in Mexican nationals for harvesting. In reply, the AFL-CIO organizing committee contended that the spreading labor disputes and strikes are for an "adequate" minimum wage.

Just as crucial, the labor organization is demanding recognition for bargaining purposes from growers, many of whom say flatly that they don't intend to let union agents "come on our farms and tell us how to run them and who we have to hire."

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DIVISIONS OF INTERNATIONAL BASIC ECONOMY CORPORATION (IBEC)

REGIONS

Most Cities Shrink, Suburbs Spurt—the Net Change Is Up

	CENTRAL CITIES			+	SUBURBS		=	METROPOLITAN AREAS	
	1950	1960	Change		1950	1960	Gain	1960	Gain
New York City	7,891,957	7,650,000	-241,957		4,282,244	6,269,226	+1,986,982	14,586,519	+13.0%
Newark	438,776	395,033	- 43,743						
Jersey City	299,017	272,260	- 26,757						
Philadelphia	2,071,605	1,954,086	-117,519		1,599,443	2,325,875	+ 726,432	4,279,961	+16.6%
Detroit	1,849,568	1,678,613	-170,955		1,166,629	2,082,608	+ 915,979	3,761,221	+24.7%
Pittsburgh	676,806	600,347	- 76,459		1,536,430	1,738,829	+ 202,399	2,339,176	+ 5.7%
St. Louis	856,796	750,000	-106,796		862,492	1,306,623	+ 444,131	2,056,623	+19.6%
Washington	802,178	747,932	- 54,246		661,911	1,221,604	+ 559,693	1,969,536	+34.5%
Cleveland	914,808	871,415	- 43,393		550,703	919,020	+ 368,317	1,790,435	+22.2%
Baltimore	949,708	923,224	- 26,484		455,691	783,737	+ 328,046	1,706,961	+21.5%
Minneapolis	521,718	481,026	- 40,692		317,986	682,845	+ 364,859	1,477,080	+28.3%
St. Paul	311,349	313,209	+ 1,860						
Buffalo	580,132	528,387	- 51,745		509,098	812,194	+ 303,096	1,304,581	+19.8%
Cincinnati	503,998	487,398	- 16,600		399,265	556,138	+ 156,873	1,043,536	+15.5%
Kansas City	456,622	468,325	+ 11,703		357,735	558,982	+ 201,247	1,027,307	+26.1%
Dayton	243,872	256,499	+ 12,627		213,461	358,219	+ 144,758	614,718	+34.4%
Rochester	332,488	316,074	- 16,414		155,144	266,909	+ 111,765	582,983	+19.6%
Syracuse	220,583	215,291	- 5,292		244,531	347,208	+ 102,677	562,499	+20.9%
Akron	274,605	287,952	+ 13,347		135,427	221,811	+ 86,384	509,403	+24.2%
Toledo	303,616	315,643	+ 12,027		91,935	137,722	+ 45,787	453,365	+14.6%
Canton	116,912	112,750	- 4,162		166,282	225,206	+ 58,924	337,956	+19.3%
Tacoma	143,673	146,734	+ 3,061		132,203	171,524	+ 39,321	318,258	+15.4%

Data: Bureau of the Census.

All 1960 figures are preliminary.

Suburbs Cut Cities Down to Size

Enough preliminary returns are in from the 1960 Census to confirm that, for the first time in U.S. history, many major cities have lost population (table above).

This is a phenomenon of vital interest to businessmen and politicians, as well as to officials and residents of the cities themselves. Previous censuses have shown spotty declines for mill and mining towns, and a couple of big cities lost people during the Depression. But never before has the roster of losers been so imposing: New York, Philadelphia, Detroit, Pittsburgh, St. Louis, Cleveland, Washington. As BUSINESS WEEK went to press, similar declines were expected to be announced for Chicago, Boston, and San Francisco.

• **Hard to Believe**—Population experts weren't surprised that urban population went down. They had inferred from the 1950 Census that the growth of our great cities was slowing down, and subsequent special counts had given them a preview of 1960. What startled even the experts was the magnitude of the losses.

City officials, on the other hand, appeared to have been taken entirely by surprise, and they were incredulous. "Unacceptable," said St. Louis' mayor

of first reports. Indignant city fathers everywhere rallied to try to prove errors in the nose-count.

San Francisco sent firemen out to ring doorbells and check whether or not people had been counted. Cincinnati also ran spot checks that purported to show that the Census Bureau had underestimated the population in slums, where people are likely to lie about how many occupy a dwelling unit. New York appealed through its municipal radio station for names of people who thought they had not been counted.

I. Great New Trend

Whether or not recounts turn up a few thousand more people here or there, no one can doubt that a fundamental change has come over the U.S. Once a rural country, it turned urban in the 1910s; now it has turned suburban.

Only last February, the Census Bureau estimated that metropolitan areas accounted for two-thirds of the 24-million population gain from 1950 to 1959. And it said that, with the cities themselves standing still, virtually all of the growth had occurred in the suburbs. Now, on the basis of early returns, the bureau's assistant director, Dr. Conrad

Tauber, thinks suburban growth may even have been underestimated.

• **Measuring Vitality**—At the same time, the figures show that it is no longer fair to judge a major city's vitality by looking at its population alone. The suburbs, too, must be taken into consideration; the criterion must be the vitality of the entire metropolitan area. As the table illustrates, a great city may lose 100,000 people, or even more, yet its metropolitan area may be booming.

The one type of city where urban population alone reflects growth is in the South, Southwest, and Far West, where city limits can be expanded to keep up with the population growth or where they were already broad enough to encompass this growth. This accounts for the population rise in such cities as Los Angeles, San Diego, Dallas, San Antonio, and Atlanta (table, page 66). Such cities absorb much of the growth that elsewhere goes to suburbs. And Milwaukee and Columbus, also up in population, were able to annex outlying areas since 1950.

II. Why They Shrink

When the official 1960 figures are issued, experts will have a field day

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Some core cities that boomed
(preliminary 1960 Census figures)

	1950	1960	GAIN
Los Angeles	1,970,358	2,451,862	481,504
Milwaukee	637,392	732,349	94,977
Dallas	434,462	672,117	237,655
New Orleans	570,445	620,979	50,534
San Antonio	408,442	584,471	176,029
Seattle	467,591	550,525	82,934
San Diego	334,387	547,294	212,907
Memphis	396,000	495,039	99,039
Denver	415,786	489,217	73,431
Atlanta	331,314	486,936	155,622
Columbus	375,901	465,151	89,250
Fort Worth	278,778	356,149	77,371

discussing exactly why the great cities have lost population or have barely held their own. But enough already is common knowledge to indicate why.

A census counts people where they live, not where they work, and there simply are fewer people who must or can live in the central cities. Business downtown may be bustling, the number of jobs may be increasing, yet people more and more choose to live in the suburbs, or feel they are forced to do so.

• **Fewer Dwelling Units**—In most cities, dwelling units by the thousands have been torn down to make way for improvements—slum clearance with federal aid under urban renewal, expressways and bridge approaches, new buildings for old ones that housed many more people.

In Manhattan, for example, even without much in the way of federal programs for slum clearance, new office buildings have taken the place of old apartment houses, and luxury low-density housing has replaced old high-density tenements in some districts.

Even where a new middle-income or low-income apartment house takes over a slum site, the new building is almost certain to house fewer people—a major purpose is to cut down the density of population that is an earmark of slum conditions. These new buildings may tower high, but if they do, the site is only partially covered, in order to surround them with air, light, and greenery.

Thus, Baltimore has lost population even though it has been more active than many cities in building new apartments under urban renewal projects.

• **Suburban Push**—Demolition isn't the only pressure forcing people to vacate city apartments. Many families have moved to the suburbs by choice, in search of fresh air, less congestion, a lawn and garden, better schools. They have been lured, too, by the apparent economy of buying mass-produced homes with liberal, government-backed mortgages, compared with the rising rents and deteriorating services in the cities.

In some cities, their decision was spurred by an influx of Negroes and Puerto Rican migrants. Though impartial studies show that entry of Negroes into a neighborhood has in itself no effect on property values, the fact remains that when the number of Negroes rises to a certain proportion, white families tend to move out. Generally, as in Washington and New York, they go to the suburbs rather than to another section of the same city.

• **Hole in the Middle**—With Negroes and lower-income white people taking over the older tenements and the low-rent public housing and with luxury apartments also on the increase, cities have more and more become places for the poor and for the rich, leaving a gap in middle-class residence.

There are real estate men who profess to see a return of middle-income families from the suburbs, such as couples whose children have grown up, but it would be hard to show from the census figures that this reverse migration is significant yet.

There is little question, on the other hand, that the masses of middle-income people still look on cities as the place to earn a living. Factories may be built in outlying areas, to get away from the costs and inconveniences of cities, but new office buildings downtown testify to the rapid growth of nonmanufacturing employment at the core. Suburbanites make up much of the growing army of secretaries, executives, clerks, and professional people who fit into this category.

III. The Meaning of It

The first reaction of the shrinking cities is to bewail their losses of state money and of political influence when legislative representation is redistributed. However, neither loss is likely to reach alarming proportions, in the opinion of most outside observers.

• **Financial Losses**—Some states distribute money to cities on the basis of population. New York, for example, pays its cities a flat \$6.75 per head out of its general revenues; Michigan shares its general sales tax with its cities. But such grants don't make up a very large part of a major city's budget.

To avoid any loss at all, cities can be expected to argue for state grants on some basis other than population. Even before the census figures began to come to light, there was some agitation to do this. But the difficulty of agreeing on any other yardstick is likely to balk any change.

• **Political Losses**—Cities' losses of political power will be direct and quick at the federal level, less clear-cut in state politics.

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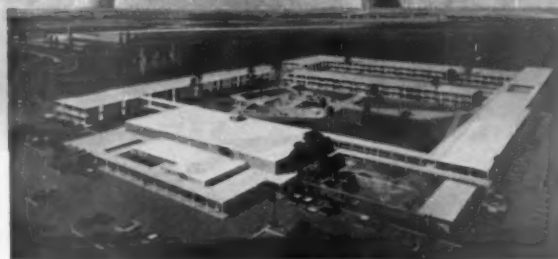


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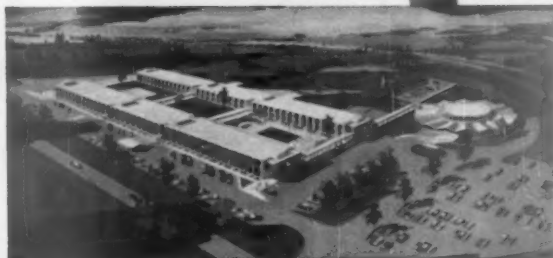
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... only 31 states have bothered to reapportion their legislative seats since 1950 . . .

(STORY on page 64)

are based on population—that's why the U. S. Constitution provided for a census in the first place. The slower-growing Eastern states happen to be the most urbanized. When their quotas of representatives are cut down, the obvious place within a state to take away seats would be in the big cities that are losing population.

In state politics, cities have had less voice anyway, except in some highly urbanized states. Cities have long complained that the original apportionment of legislators heavily favored the rural districts, especially as the population shifted in the last half-century from farm to city. But it remains to be seen if the shift from city to suburb will be reflected in apportionment or will be ignored like the earlier trend.

According to the Council of State Governments, only 31 states have bothered to reapportion their legislative seats since 1950. Now one of the chief pressures to do so is eased—the cry of cities that they don't have the votes to which their population entitles them.

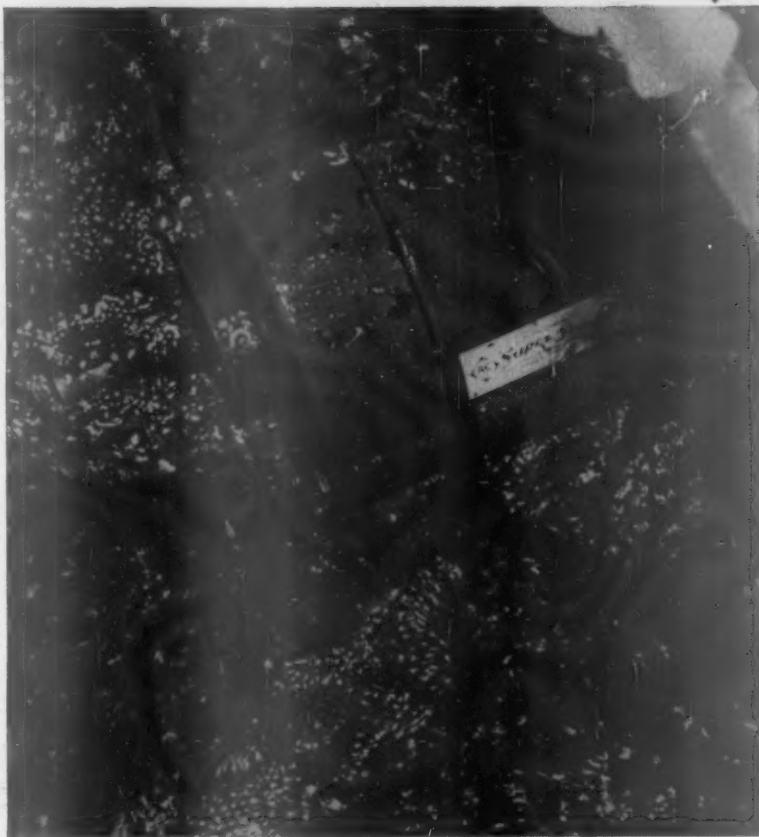
• **Suburban Vote**—If there is a new cry for reapportionment, it will likely come from the suburbs. Political observers see a suburban "third force," though it may be a long time in attaining anything like a balance of power between city and rural blocs, especially if states drag out reapportionment. Whatever power the suburbs have, though, will cut more into rural than into urban strength in legislatures—most suburbs sprang up on rural land.

Of course, not all suburbs are alike. Some close to city limits are heavily industrialized, have much the same traffic and housing blight as the core cities. At the other extreme are fashionable suburbs such as Shaker Heights, outside Cleveland, that have little in common with neighboring communities.

However, the stereotype middle-class bedroom town, with its white-collar people and its better-paid blue-collar workers, has one foot planted in the city and the other in the rural area. It has an interest in the city's problems that affect its own life: streets and roads, public transportation, pollution control, planning of land use. But it is more likely to feel a kinship with rural interests in statewide spending, grants to big cities, and taxes imposed by cities.

• **Its Own Problems**—A suburb's attitude toward the big city, particularly if the suburb is new, is likely to be unsympathetic if not downright hostile. The

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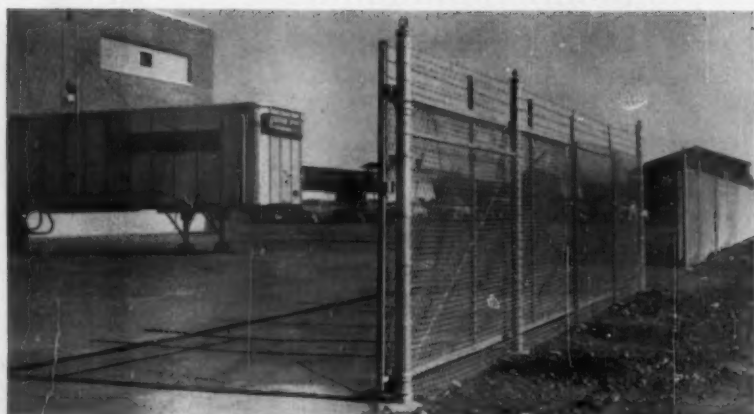
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suburb may also resent the rural-oriented leadership of the state. Suburbs have problems of their own that they share with neither of the older groups: needs for new schools, sewer and water systems, growing municipal services for new real estate developments.

Thus, the political role of the suburbs—for a time, at least—will be to fill suburban needs through log-rolling, sometimes in alliance with the city legislators and sometimes with the rural bloc.

• **Give and Take**—Increased awareness of metropolitan areas as areas, not mere collections of municipalities, may lead to more cooperation among governments. Not many people envision a "super government" for a whole metropolitan area, but they can see more special-purpose collaboration. Suburbanites used to view such proposals as schemes to bail out the old and dying core city. Now the shoe may be on the other foot.

The central city has its problems, to be sure. But it already has a huge capital investment in bricks and mortar, steel and pavement. It has a broad tax base, well diversified among housing, commercial, and industrial property. This base isn't declining with population—in New York, for example, assessed valuation has grown from \$20-billion to \$25-billion in the last 10 years.

In contrast, the suburbs are building new homes like mad, creating a continual need for more capital outlay for schools, streets, water systems, sewage, and other services. Generally, they don't have the city's diversity of tax base; their tax rolls are loaded with the same homes that generate the demand for services.

To serve common needs, suburbs are increasingly getting together on such things as trunk sewers, water treatment plants, sewage disposal plants. Special districts may be set up for such purposes. In other cases, an attempt is being made merely to cooperate voluntarily in a loose federation of powers.

• **Ultimate Peril**—The apparently limitless rise of taxes on suburban property contains a built-in danger, according to such men as Ernest Fisher, Columbia University Business School land economist.

These experts picture typical suburban homeowners as young families setting out to raise children and getting themselves heavily committed to debt on houses, cars, and other suburban necessities. Few of these families, economists say, could ever have anticipated that realty taxes would rise so swiftly, upsetting all their calculations over what their monthly payments on shelter would be. In the end, if taxes keep rising, such families may have to give up their homes and move farther out where houses—and taxes—are cheaper or else they may have to move back into old housing in the city. **END**



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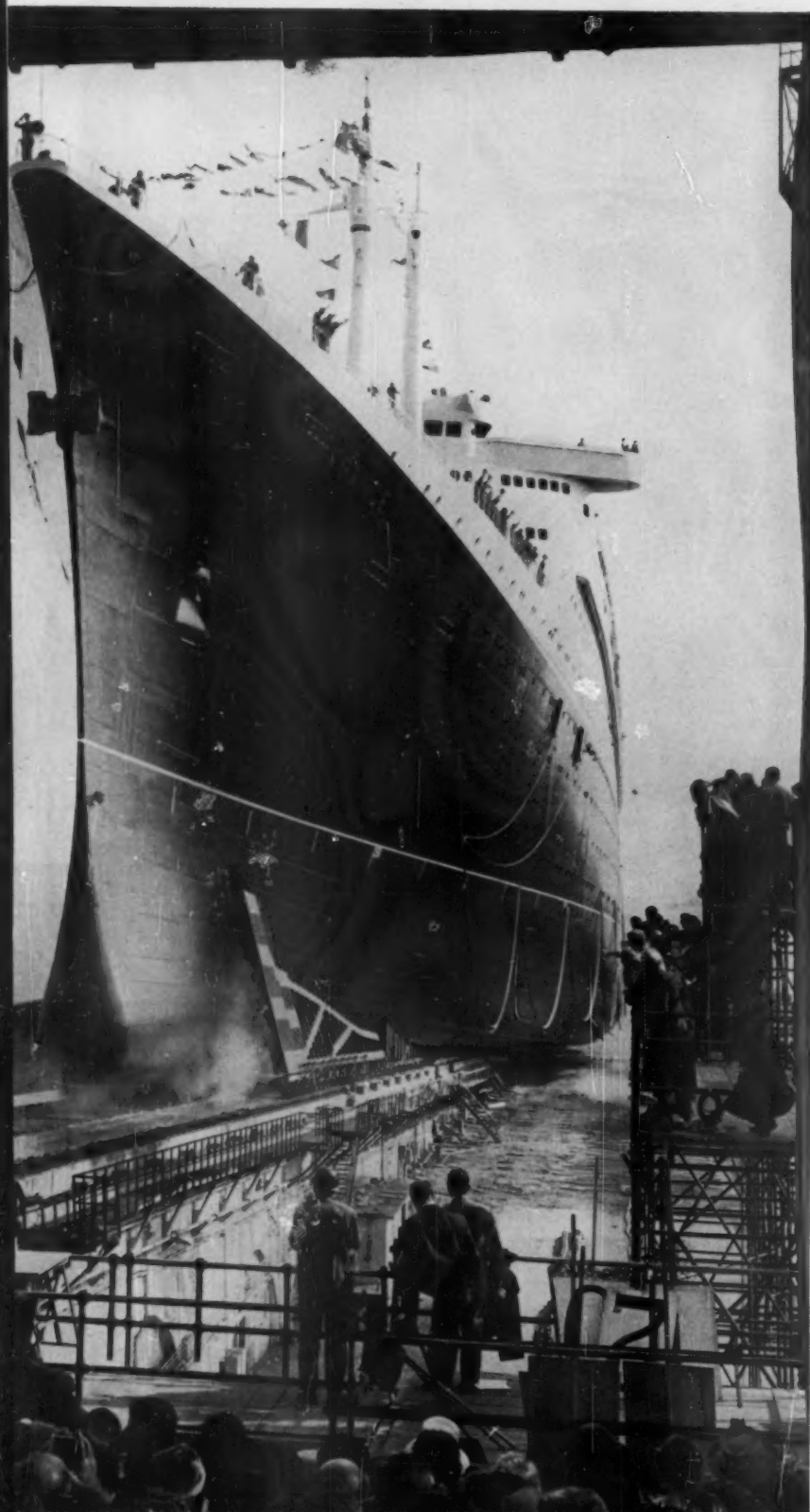
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Superliners Have a Future



That's the betting of the French in launching their new France (picture) and also of the British in planning a new ship.

Planes carry more passengers across the Atlantic than ships do these days, yet governments and businessmen are betting that the Queen-sized liner is in no danger of becoming obsolete.

The \$54-million liner France slid down the ways at St. Nazaire last month (picture). In the spring of 1962, she will make her maiden voyage to New York for the French Line as, in the words of Pres. Charles de Gaulle at the launching, "the ambassador of our civilization." The French, who have never quite gotten over the wartime loss of the Normandie, look upon the new flagship as a prestige symbol—the longest, if not the heaviest, liner and along with the United States, the fastest.

Meanwhile, Great Britain is talking of a similar superliner to replace the Cunard Steam-ship Co., Ltd.'s Queen Mary, as recommended by a committee headed by Lord Chandos (BW—Jun. 11 '60, p132). Prestige has a place in British thinking, but the new ship would also be expected to be a money-maker, without a direct subsidy.

- **Luxury Service**—Obviously, no ocean liner is going to compete with jet planes on speed, so the ship operators put the emphasis on comfort and the fun of cruising. They ask only that new ships be designed to cross the Atlantic in the magic number of five days, as the Queens and the United States now do.

Both Cunard and the French Line (64% of which is owned by the French government) were under pressure to consider smaller ships that might, like Dutch and Scandinavian liners, have off-season uses elsewhere than the transatlantic run. Both weighed and rejected the idea—strictly on commercial grounds, both say, rather than on the prestige of owning the biggest and fastest.

Only Queen-size ships will pay on the North Atlantic, says Cunard, and they will be profitable for at least 20 more years. Cunard argues that its clientele is the cream of the transatlantic trade—people who want a fast ocean voyage with a certain amount of luxury. Only a large ship can offer this; Cunard regards even the United States as too cramped to offer profitable luxury.

- **Speed Pays Off**—The French Line toyed with the idea of replacing the *Liberte* and the already-scrapped *Ile de France* with two 35,000-ton vessels, and dropped it in favor of the superliner

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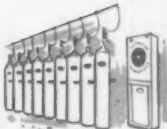
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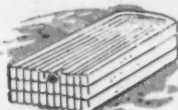
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Adapted from one of the Clients' Service Bulletins of The American Appraisal Company

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It is important, however, to understand the coinsurance clause. Under it, the insured assumes an obligation to carry at all times an amount of insurance equal to a stipulated percentage of the actual cash value of his property. If he fails to do so, he shares in any partial loss in proportion to his deficiency. An 80% coinsurance clause does not mean that he will collect only 80% of any loss he may suffer. If he fulfills his obligation, he will collect in full on any loss up to the face value of the policy. If he does not carry out his obligation, he may collect substantially less than the actual cash value of his loss.

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The property owner should know the actual cash value of his property at all times and be able to prove it. Since the property and its value fluctuate from year to year, and since compliance with the coinsur-

ance clause is determined on the basis of values at the date of the loss, he should check on his values at least once a year. By so doing, he can safely take advantage of the savings afforded by coinsurance.

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France. The new ship and the little Flandre (600 ft. long, 20,477 tons) will handle French Line transatlantic trade after the spring of 1962.

A ship like the France, French Line officials say, is long enough to ride the crests of three big ocean waves, so it doesn't have to reduce speed to avoid slapping into the waves as a shorter ship does. This permits a superliner to make about 23 round trips a year, compared with 17 for even the most modern smaller ships. According to the French Line, the United States is the best combination of speed and tonnage now in service on the Atlantic run.

Cunard admits to envying one feature of the United States: its shallow draft. The Queens draw 39 ft. of water, and they have to wait out the tide at Southampton while the United States, drawing 29 ft., can come and go on any tide. The proposed replacement for the Mary is planned for about 30-ft. draft.

• **Measurements**—The new superliners will look more like the United States than like the wider, heavier Queens, Normandie, or Liberte (the former German liner Europa and currently the fourth-largest). They'll be narrower, lighter, shallower, and faster.

Here's how existing ships compare: **Queen Elizabeth**. The longest at 1,031 ft.; 118½ ft. wide; the bulkiest at 83,673 tons. Capacity of 2,233.

Queen Mary. Length 1,019 ft.; beam 118½ ft.; 81,237 tons. Carries 1,957 passengers.

United States. Length 990 ft.; beam 101½ ft.; 53,329 tons. Capacity about 2,000 passengers.

Liberte. Length 937 ft.; beam 102 ft.; 51,839 tons. In the 1930s, as the Europa, one of the speed queens of the Atlantic, eclipsed first by the Queens and then by the United States.

The new France will be 1,035 ft. long—4 ft. longer than the Elizabeth and 7 ft. longer than the old Normandie—but only about 68,000 to 70,000 tons. Her 31 knots will put her in the speed class of the United States, two or three knots faster than the Queens. The projected Cunarder will probably be similar in dimensions, about 75,000 tons.

U.S. thinking on superliners hasn't been thoroughly free to express itself. In order to get a federal subsidy for construction, the United States had to be held down to a size that would fit through the Panama Canal; Cunard people say that's why it can't operate without subsidies.

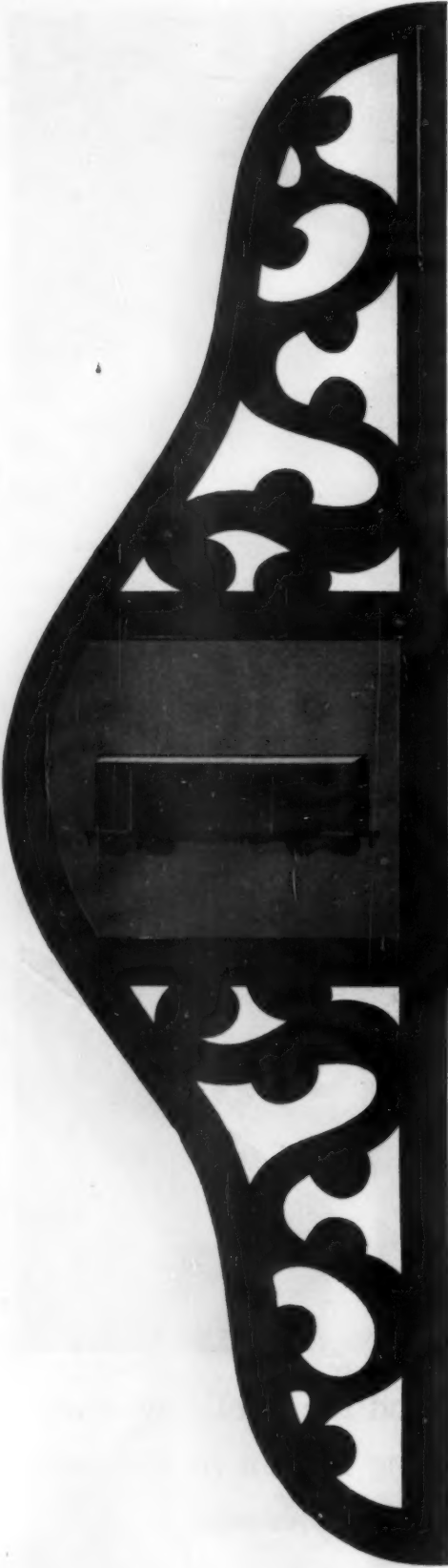
• **Latest Design**—The new superliners take advantage of lighter materials, such as aluminum instead of steel in superstructures, and of more powerful yet smaller engines that leave more space and weight for payload.

The France compensates for her narrowness by use of two stabilizers for steadiness. Her hull is welded instead



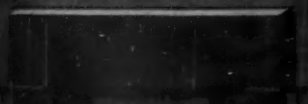
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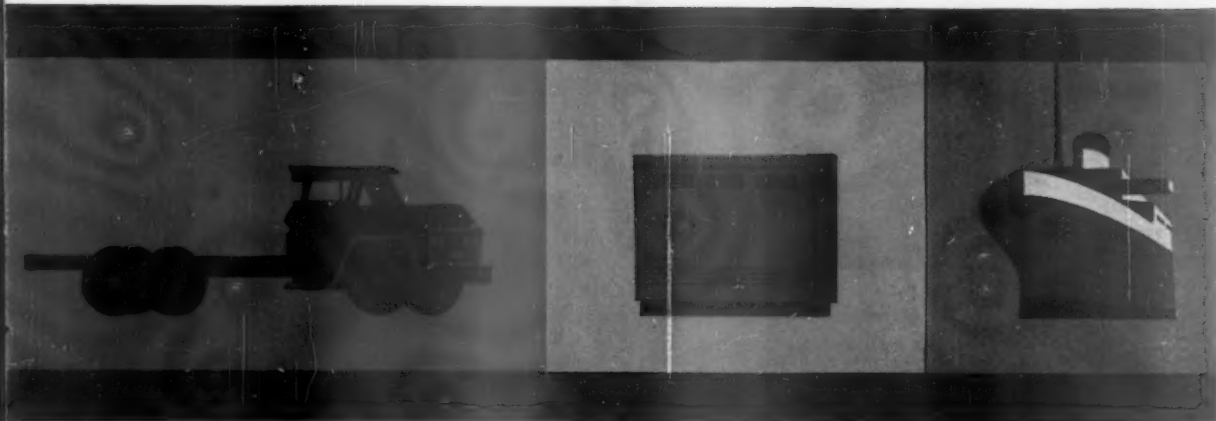


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of riveted, for another weight saving. Like the ill-fated Normandie, she will be powered by 160,000 hp. of steam turbines, but the newer design of engines give her greater speed on 40% less fuel.

Since the France, like all other big liners, is designed for a useful life of 30 years, the French Line isn't overlooking the possibility of converting to nuclear power. The hull has been reinforced to take the weight of shielding.

"We are a commercial company," says a high official of the line. "We will burn oil, atoms, coal, or rabbit skins if we can save money."

French Line spokesmen say liners may get larger and faster, rather than smaller and faster. Fifteen years from now, assuming progress in nuclear power and the use of hydrofoils to lift hulls out of the water, they say the leading ocean liner may be in the 80,000-ton class, with a speed of 40 knots.

• **Slow Ships to Suffer**—This checks with the thinking of Britain's Chandos commission and the Cunard line itself. The ships that become obsolete and that are hit hardest by air competition will be the smaller, economy-fare vessels, they think.

People who want to get somewhere cheaply and are willing to put up with discomforts to do so are the people who will want to get their trips over as fast as possible—they'll ride the planes, tourist-class. That's the basis for Cunard confidence in the longevity of luxury-liner business.

The Chandos committee was charged with considering "how the British express passenger service across the North Atlantic could best be maintained," not whether it should be continued. Its conclusion:

"In the face of the severe competition . . . both from the air and from subsidized ships of other nations [the U.S. and France, chiefly], any replacement ship, in order to provide a continuing attraction to passengers, must be of the highest standards and capable of making the crossing in under five days. This in itself means that it would be of a size and speed which would make it unsuitable for any other service."

• **Financing**—The Chandos committee frowned on the idea of direct subsidy to finance construction of the Queen Mary replacement, estimated at up to \$84-million. The financing plan is said to be based on a 25-year loan at 4½% interest from the date the ship goes into service, with provisions to accelerate retirement of debt or cut the interest rate according to the ship's profit record.

The France is being financed by an outright \$18-million subsidy, one-third of the estimated cost. The French Line is taking the rest from its reserve fund. **END**



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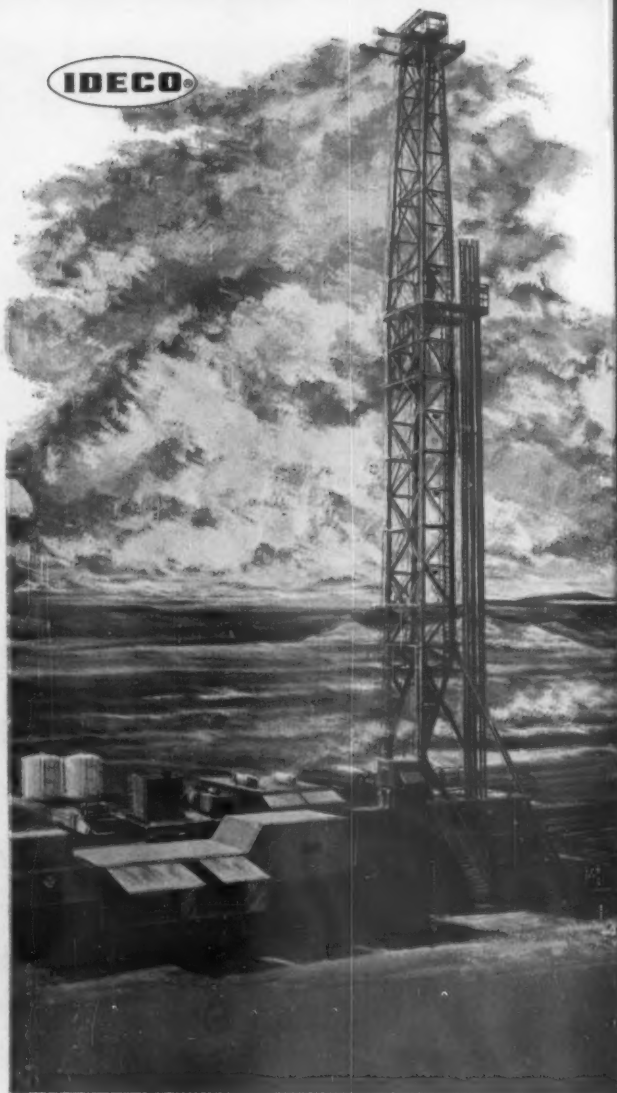
AGILE GIANT *seeks oil oasis*

In the sands of the Libyan desert, where temperatures vary 100 degrees in a 24 hour period, the world's largest wheel mounted drilling rig searches for oil to help power the machines of the world. The five semi-trailers of this giant rig, manufactured by Ideco Division of Dresser Industries, are mounted on huge sand tires to allow rapid and easy movement over the soft and treacherous desert floor. Because of the remoteness of the area of drilling operation, the rig is equipped with a complete set of spare parts, and engines were chosen that could utilize crude oil as fuel.

The Desert Rambler towers 12 stories high and was built by Ideco for Camdrill International, Inc., a drilling firm operating extensively in North Africa. It is being used by the Oasis Oil Company, a wholly owned subsidiary of Ohio Oil, in a drilling program for Ohio and its associates, Amerada Petroleum and Continental Oil.

This highly mobile and efficient rig is another example of breakthroughs made by Ideco, manufacturers of the world's most complete line of oil and gas well drilling and servicing equipment. The company earlier introduced structural steel derricks to the oil industry and then put the drilling industry on wheels with its Rambler Rigs. Ideco equipment, including rigs, masts, mud pumps and accessories, is capable of handling work ranging from light servicing to the deepest drilling yet envisioned.

Dresser Industries, Inc., with its twelve operating units, has long been known as a major supplier for the petroleum industry. The Dresser companies, working individually or as a team, are given full support in

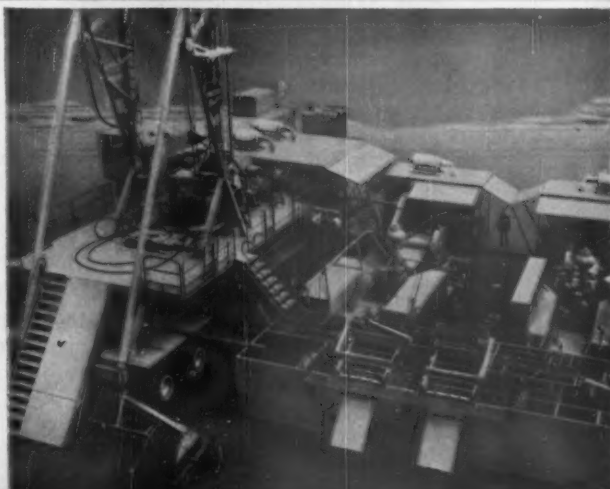


the parent company by a group of management specialists who encourage imagination and initiative in research and development. We will gladly send you full information on why Dresser equipment and technical services are recognized as standards of comparison the world over.

**TOMORROW'S PROGRESS
PLANNED TODAY BY
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In Business Abroad

• • •

Castro Takes Over Last Two Hotels Operated in Cuba by U.S. Companies

Fidel Castro's revolutionary government this week took over the last two hotels operated by U.S. companies in Cuba.

The Cuban Minister of Labor charged Hilton Hotels International, Inc., operators of the Habana Hilton, and Intercontinental Hotels, proprietors of the Nacional, with not having lured enough tourists to Cuba and thus causing labor difficulties.

Neither of the U.S. companies owned the hotels. Hilton operated the Habana Hilton for the Hotel and Restaurant Workers Federation of Cuba, while Intercontinental ran the Nacional for the Cuban government. Both had made limited capital investments for improvements in the hotels.

Neither company would estimate the loss it will incur, should the take-over be permanent. At midweek, the companies had not decided whether to protest.

Hilton's international hotel interests have spread to East Africa. The Ethiopian government announced last week that in September it will start building a new \$5-million hotel in the nation's capital—to be called the Addis Ababa Hilton. Hilton International will operate the hotel on a profit-sharing basis.

• • •

U.S. Chemical Companies Set Pace For Private Investment in Australia

U.S. companies are contributing one-third of the \$225-million private investment scheduled for Australia this year, according to Acting Prime Minister John McEwen. He said more than 1,000 U.S. companies have manufacturing agreements or financial interests in Australian companies.

Australia's expanding economy and stable government are continuing to draw more U.S. private investment. Developments include:

- Monsanto's formation of a jointly owned chemical company with Australia's Consolidated Zinc Pty.—the U.S. company's second Australian venture in 12 months.

- Allied Chemical Corp.'s link-up with Polymer Corp. of Sydney to form a joint company for manufacture of nylon tire cord and other nylon products.

• • •

British Chemical Giant Stages Show In Moscow to Spur Trade With Russia

With the British government's blessing, the United Kingdom's chemical giant—Imperial Chemical Indus-

MORE NEWS ABOUT BUSINESS ABROAD ON:

- P. 84—Mexico City, ancient Aztec capital and modern mecca for tourists and artists, is fast becoming an international business center.

tries—is staging a major technical exhibit this week in Moscow to convert the Russians into buyers of ICI knowhow.

It's the first time a Western company has single-handedly sponsored an industrial display on this scale in the Soviet Union.

Industrial technicians and experts from all over Russia stood in line to hear lectures, study displays, and view hundreds of chemical products. Premier Khrushchev also visited the exhibit.

As close-mouthed as usual about ICI dealings with Communist countries, company officials declined to comment on sales or negotiations generated by the exhibit.

In contrast with the majority view of U.S. chemical companies, ICI sees nothing wrong in selling technological information to Communists. "American hostility [toward trading in knowhow with Communists] is wrong," ICI Chmn. S. P. Chambers says. "Some are afraid that knowhow will be used in economic warfare. We hope that we're strong enough to hold our own."

So far, it appears that most ICI trade with Iron Curtain countries has been in products—chiefly plastics and dye-stuffs. Exports to the U.S.S.R. and East Europe rose from \$5.3-million in 1958 to \$9.5-million last year.

• • •

Chile Asks U.S. Mining Companies To Help Recovery by Expanding Now

Pres. Jorge Alessandri of Chile has asked two U.S. copper companies, Anaconda and Kennecott, to speed up investment plans to assist Chile's recovery after the devastating earthquake.

Prior to the earthquake, both companies had been considering expansion of mining and processing facilities in Chile. Kennecott has under study a \$200-million investment. Anaconda has not announced the cost of its plans.

At midweek, both companies reported they are still considering the investments. Kennecott said it awaited "necessary guarantees" from the Chilean government, while Anaconda said it was asking the Chilean government to insure "satisfactory conditions" before going ahead. Neither company would define publicly the conditions and arrangements it would consider necessary and satisfactory.

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Business Abroad Briefs

Polaroid Corp. has licensed Yashika Co. of Japan to manufacture Polaroid Land cameras for Japanese and overseas markets.

American Motors will start assembly of Ramblers on Malta this year to serve Middle East and African markets.



CASA LORETTA near Mexico City is the home of Frank Loretta, head of du Pont's Mexican operations. Mexico's booming economy is attracting more and more bona fide investors—as well as individuals who see unlimited opportunities to make a fast buck.

Investors Find Utopia In Old Aztec Capital

Mexico City—a capital since the days of the Aztecs and the Spanish viceroys, but perhaps better known to latter-day Americans from the north as a balmy mecca for tourists and artists—is now becoming the center of a new, international business community. Signs of the city's changing personality are everywhere.

Around 9:30 a.m. on a weekday, parking areas along the Paseo de la Reforma, Mexico City's combination Champs Elysees and Fifth Avenue, begin to fill up. The sing-song Mexican style of Spanish is joined by a babel of English, German, Italian, French—occasionally, even Czech and Japanese.

Small groups of international businessmen (cover) meet briefly at one of the monument-adorned traffic circles known as "glorietas" to buy a paper, talk shop about problems with the government, maybe make a luncheon date. By 10, most of them have hustled into one of the nearby skyscrapers that line the Reforma.

• **Strategic**—Some of these men work for big, international outfits that now use Mexico City as a base of operations for all Latin America. For them, the place is strategic. Mexico not only has its own thriving, developing economy, but is a gateway to the lands to the south. Mexico also is a member of the embryonic Latin American Common Market, which may someday develop along lines parallel to the European Common Market.

The city is convenient, too, as a Latin American base. It is close to the U.S. and it is the vortex that draws in 60% of Mexico's retail sales, 70% of all the country's businesses.

These international companies and their Mexican managers often make local news columns with announcements of new plants, new Latin American head offices, or gala receptions for visiting executives. But there is another crowd in the international colony—the "quiet ones," who get around a lot in government and business circles, but shun the news columns.

These men are not with big, international organizations; they are freelancers, wheeler-dealers, individual angle-shooters working some quiet deal, often making more money, faster, than the well-paid company chiefs.

• **Fast, but Relaxed**—All these people, lone wolves and organization men together, are rapidly turning Mexico City's foreign colony into the fastest-growing international business center on the continent. The local Anglo-American Directory, to give one example, now has 4,000 individual listings—up from 2,000 five years ago.

The newly arrived visitor can't help being impressed by this "smell of money being made," as one vacationing New

DAVID CLAY (right), Pepsi-Cola's Latin American manager, entertains visiting customers at Sunday afternoon bullfights.





FINANCIER Juan Rivera (center) chats in front of U.S. bank he represents on Calle Isabela Catolica—Mexico's Wall Street.



BOSS Ernst Krause (left) of Volkswagen's interamerican operations says: "You just have to be in Mexico City."



FREE LANCER Jorge M. Kovacs (right) talks business with French banker Jean de Laborde-Noguez, who left Paris for Mexico.



EDWARD NOBLE (right), U.S. advertising man, has his own company in Mexico—where creative work is less costly than in New York. Noble had \$5-million in billings last year.



BRUNO PAGLIAI (left), an Italian now become a Mexican, is president of TAMSA, steel tube maker, and heads Intercontinental, S.A.—an outfit that teams up Mexican and foreign capital.

York broker phrased it. But the visiting businessman also finds he can really relax, momentarily forgetting money and markets, in Mexico City's warm, tasty, springlike mountain air, surrounded by flowering Jacaranda trees and the misty spray from countless fountains. The feeling is of money being made in an atmosphere of sophisticated living where, according to a U.S. management consultant, "a man can make it, and enjoy it."

I. The "Quiet Ones"

Nice, quiet deals are being made in Mexico City, with little fuss, no nationalistic outcries. Opportunities float by that don't require backing from international organizations. The country itself and the Central and South American markets to the south have booming business-frontier situations like those of the "robber baron" days in the U.S.

Big business centers in Europe and the U.S., crowded with money and talent, are increasingly hard to break into. Young men with a head for business, no particular ties, and a yen to combine the enjoyment of making money with the enjoyment of spending it, are moving out of these places and in surprising numbers are heading for Mexico City.

• **Tax Vacation**—One local investment counselor (who shuns identification) says: "Mexico City is becoming a money-making vacation land away from Wall Street." He explains that a U.S. citizen in a high income bracket can come to Mexico, buy up, indirectly, thousands of shares of some well-known U.S. mutual fund, and save himself a big sum on U.S. income tax.

This works out through a very tricky, hush-hush deal that involves a complicated U.S.-Dutch treaty and gets from the U.S. to Mexico via Curacao in the Dutch West Indies.

The treaty was made to encourage sales of U.S. stocks abroad, and provides that the foreign purchasers of U.S. stocks shall pay a maximum of 15% in U.S. taxes, whether on dividends received, capital gains, or what. In Holland, the government adds on a tax of its own that brings the total close to what the owner would pay in the U.S. But the Curacao tax is extremely light, at most 2%.

• **Bearer Shares**—The deal was made for foreigners, not for U.S. citizens. Americans in Mexico get in on it by buying bearer shares of Curacao companies that in turn buy U.S. securities—mutual funds are the favorites. Bearer shares mean that the U.S. visitor can pick the shares up anonymously, have them deposited in Mexico City at his broker's, and nobody is the wiser.

Say a U.S. citizen in the 60% tax bracket comes to Mexico City, buys a thousand of these bearer shares. The Curacao company gets the dividend payments—and on mutual funds, the capital gains distributions—from the U.S. company. The Mexico-hibernating American gets the dividends from the Curacao company. The Curacao company, or someone else along the line, pays the 15% U.S. tax—and the hibernating American presumably reimburses for this payment.

But that's as far as the matter goes. Obviously, he can't find a suitable line for it on his 60%-tax-bracket return at home. Probably he has lived it all up by that time, anyway—though some do

make a big killing and leave the money on deposit in a Mexican bank. Others leave the shares on deposit and come down every year to collect the earnings.

There are other attractions, too, for speculation-minded vacationers from the north. Mexico City brokers permit trading in New York Stock Exchange securities at only a 30% margin—one-third of the 90% required in the U.S.

• **Land of Business Opportunity**—The young business free-lancers, however, are not vacationers, but permanent residents. Many things drew them to Mexico.

"I came because at home everything has been done, there's little future for a young man. . . . In Europe and in the U.S., the major business activity is in organizing what already exists . . . in Mexico City we can create new businesses." This comes from dapper, cigarette-puffing Jean de Laborde-Noguez, a Frenchman who left a job with the House of Morgan in Paris to try his luck in Mexico.

De Laborde put most of his money into a local "financiera," a Mexican-style industrial and commercial credit bank. Now he's one of the bank's directors, is married to a Mexican society girl, talks of bold moves into underwriting local stocks to sell on Mexico City's awakening stock exchange, the "Bolsa."

One of de Laborde's business lunch-cronies is Jorge Kovacs, once a struggling Hungarian chemical engineer. He skipped out of Europe at the beginning of World War II, landed in Colombia with no money. He found no opening for chemical engineers, so he and his family started making and marketing candy, did so well at it that

PRACTICAL ANSWER TO SMALL WAR CONTROL

The Tactical Air Command (TAC) is the practical air arm of the U. S. Air Force.

TAC's all-weather mission capabilities start from the ground up. So do the capabilities of the aircraft it flies: Republic's F-105 Thunderchief. >> TAC teams up with our Army's tactical ground forces to assure terrain control. TAC helps assure this by giving close support to these ground forces . . . by becoming an umbrella which helps deter aggressor efforts, pinpoint aggressor targets, prevent aggressor action. TAC and the F-105, in addition to versatility, offer extremely important economy factors: economy of force, personnel and the defense dollar: one aircraft capable of multi-purpose performance missions.

REPUBLIC  AVIATION

FARMINGDALE, LONG ISLAND, N. Y.

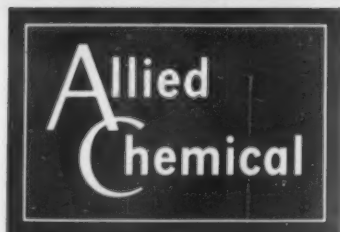
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For whatever you wear—a NATIONAL dye. Chances are that whatever you're wearing—right now—is colored with a NATIONAL dye. For our National Aniline Division makes dyes for every fiber, every fabric. There are dyes for yarns, piece goods, prints, synthetics—even leather. Some of the more popular NATIONAL dyes for the textile industry: CARBANTHRENE vat dyes for cotton, LANAMID premetallized dyes for wool and nylon, NABOR dyes for acrylics, PARA dyes for leather. Why not find how Allied ideas can help *your* business? Just write to Allied Chemical Corporation, Dept. 66-B, 61 Broadway, New York 6, N.Y., or phone HA 2-7300.

*...where new ideas in dyes
open doors...*



to better textiles!



Better cottons through new low-cost bleaching. These two dresses look alike—but are they? Far from it! The one at the right is made of cotton bleached by our Solvay Process Division's activated hydrogen peroxide method. This new process yields cottons of higher purity and greater brightness, with less tendency to yellow. Cuts the cost of bleach chemicals up to 50%, too. Ideas from Allied for the textile field are typical of Allied ideas for *all* industry.



ANDY DANEFF PUT THE RAINBOW IN A CAN

There are wealthy men today who can credit their first million to men like Andy Daneff. Andy is an Alcoa Specialty Salesman who helped manufacturers formulate a paint for an overlooked source of profit—the fifth side of a building.

By drawing on Alcoa's vast fund of aluminum knowledge, Andy's customers were able to mix color and tiny aluminum flakes to dot the landscape

with sparkling rooftops that defy the weather and please the eye.

Andy is one of some 500 Alcoa Specialty Salesmen who scored kindred accomplishments in hundreds of different industries. They helped put buy-appealing foil packages on the grocer's shelf; high-purity alumina ceramic nose cones on today's guided missiles; aluminum electrical transmission lines across the land.

Whatever you make in aluminum, Alcoa trains specialists like Andy Daneff to help you produce it, package it, promote it and sell it. This is still another way we put more than 16 ounces of metal into every pound of Alcoa® Aluminum you buy—an added value that's all yours when you call on your local Alcoa sales office. Aluminum Company of America, 2016-F Alcoa Building, Pittsburgh 19, Pa.



ALCOA ALUMINUM

helps you design it, make it, sell it



Alcoa has hundreds of Andy Daneffs to help you design it, make it, sell it

All of Alcoa's skills are mobilized to a single purpose: To put more than just 16 ounces of metal in every pound of Alcoa Aluminum you buy. Here are 12 of the dozens of ways to do it:

1. **Research Leadership**, bringing you the very latest in aluminum alloys and applications.
2. **Product Development** by specialists in your industry and your markets.
3. **Process Development Labs** for aid in finishing, joining and fabricating.
4. **Service Inspectors** to help solve production problems at your plant.
5. **Quality Control** to meet top standards or match your special needs.
6. **Complete Line** including all commercial forms, alloys, gages, tempers.
7. **Availability** via the nation's best stocked aluminum distributors.
8. **Foremost Library** of films and books to help you do more with aluminum.
9. **Trained Salesmen** with a wealth of on-the-spot information.
10. **Sales Administrators** constantly on call to service your orders.
11. **Year-Round Promotions** expanding your old markets, building new ones.
12. **The Alcoa Label**, leading symbol of quality aluminum, to mark your goods.

**Added Values
With Alcoa
Aluminum**



... is a case book of Alcoa special services and a guide to their availability in design, manufacture and sales. Your copy, with some of the most rewarding information you may ever read, is waiting and it's FREE. Write: Aluminum Company of America, 2016-F Alcoa Building, Pittsburgh 19, Pa.

Charms Co., big U.S. candy maker, signed with him to make and push its products in Colombia. The deal paid off handsomely, and Kovacs moved to Mexico City—a much bigger market. Last year, the first full year in Mexico City, Charms candies netted nearly a quarter of a million dollars.

Now Kovacs has a new holding company, Industrial Fenix. It's in process of working a deal with General Foods to make and sell that company's line of packaged foods.

• **From U.S., Too**—A different lure drew biochemist Carl Djerassi, an American of Bulgarian-Austrian parentage, to Mexico City. While working for a U.S. pharmaceutical company, he heard that Syntex Corp.—engaged in research and production of steroids and hormones—was expanding operations in Mexico.

Djerassi became vice-president in charge of research at Syntex's Mexico City plant, and helped push the steroid and hormone program along so fast it finally was linked with giant Eli Lilly & Co.'s world research program. Now Djerassi has time to pursue his hobby of archaeology—one of the things that helped bring him to Mexico—and on occasion heads down into the Yucatan Peninsula with local archaeologists to probe a new Mayan ruin find.

Another from the U.S., Edward J. Noble, a free-lance advertising man, had \$5-million in billings last year. Noble also finds that moving in local business and professional circles makes for fun as well as good business. He does a lot of entertaining for local artists, movie and TV names.

It was in 1952 that Noble set up his own advertising company in Mexico. In 1959, his billings topped those of any one of the Madison Avenue agency branches.

The Madison Avenue agencies, however—such as McCann-Erickson, Grant, Young & Rubicam, J. Walter Thompson, to name a few—don't aim just at the Mexican market. They are in town primarily to work all of Latin America with Mexico City as a base—and find they can blanket it, except for Portuguese-speaking Brazil, with campaigns based in Mexico City.

There are good reasons for this. Creative work is much less costly than in New York. A good color spread drawn up by a Mexican artist costs around \$200; in New York, it would cost \$2,000. Mexican-made TV commercials come at less than half the U.S. price.

II. The Company Men

The international company men, though usually not operating in the flashy situations that have drawn individual wheeler-dealers to Mexico City,



UPJOH's Warren Miller poses in front of drug company's new plant in Mexico City. The building is decorated with Aztec murals.

are far more numerous. Companies such as Volkswagen and men such as Ernst Krause, its "Interamerican" boss (covering from Mexico on down to Brazil) are finding that "you just have to be in Mexico City... the longer you wait, the tougher it gets to move in... because the competition doesn't wait."

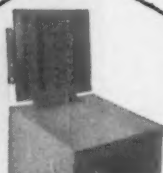
• **Squeeze**—The auto industry is a case in point. Mexico now imports or assembles locally some 38 brands of autos and trucks. The Mexican government wants the auto companies either to move in with integrated production plans, or get out. And the market can only stand five or six integrated plants.

Sensing the impending squeeze, Ford, Mercedes-Benz, Nissan Motors (Japanese), and Renault (working with the Mexican government) have all announced within the last month plans for production in Mexico. Ford's calls for an eventual \$50-million investment, Nissan's \$20-million.

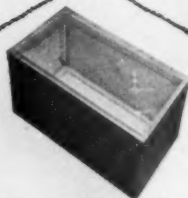
Oilfield equipment makers have found in Mexico's giant government-owned oil company, Pemex (\$1.5-billion assets), a voracious market. But here, too, the government is saying: Come in with local plants, or plan to stay out.

Walter Hamer's company, Cameron Iron Works, heeded the call, is working on a \$4.5-million plant for valves and other drilling gear. Dresser Industries, Camco, Inc., Joy-Sullivan, and a growing list of others are moving in with Mexican plants and most are signing up for membership in Mexico City's plush new International Petroleum Club—"a little bit of Houston away from home."

• **Training Ground**—But there are other reasons why international companies find themselves setting up divisional offices and plants in and around Mexico City. One is that it's a good training



Lightweight vacuum pick-up plate of BONDOLITE for safe, easy and fast handling of fragile, bulky materials reduces strain and fatigue.



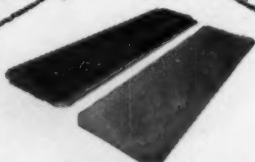
Pressure container for airborne electronic gear cuts weight to 50% of other types.



Wing section of BONDOLITE is 20% lighter than other types.



Radar reflector of BONDOLITE is 35% lighter than previous version.



Tire tread-handling pallet provides long, maintenance-free life, reduces worker fatigue.



Loading tray for tire valve stems: 55% lighter than other trays.



Doesn't this light, high-strength honeycomb material "put a bee in your bonnet"?

There's hardly a job in construction—light or heavy—that BONDOLITE can't improve. This impressively strong structural sandwich material is one of the highest strength-weight ratio fabricated materials. Rigid? One type of BONDOLITE actually withstands pressure of 64,000 psi without bending! Yet you can work it with ordinary shop tools.

Goodyear supplies BONDOLITE in many sizes or shapes, from $\frac{3}{8}$ " to 5" thick (even thicker on special order). Depending on the application, you can specify cores of metal foil, paper, plastic or wood. Surface? You name it—stainless steel, aluminum, fiberglass, plywood, fancy veneers. It can even be pattern-

embossed for extra rigidity and wear-resistance or for decorative purposes.

Whether your product or project calls for great strength with no sacrifice in pay load—or more pay load for the same weight—BONDOLITE is very likely the answer. That's why missile men and plane makers specify BONDOLITE for decks, bulkheads, mounting boards. And that's why it can do a job for you in such applications as partitions, trailers, truck bodies, boat hulls and bulkheads, containers—even table-tops. For full details, write on company letterhead to Goodyear Aircraft Corporation, Aero-Mechanical Division, Dept. 916RR, Akron 15, Ohio.

Lots of good things come from

GOOD YEAR AIRCRAFT

Bondolite—T. M. Goodyear Aircraft Corporation, Akron 15, Ohio

Plants in Akron, Ohio, and Litchfield Park, Arizona

ground for companies wanting to work the entire Latin American market.

Warren Miller, Upjohn Co.'s new Latin American divisional chief based in Mexico City, has that in mind as he gets ready to start production in Upjohn's new \$1.2-million Mexico City plant. He feels his company's previous management trainees got the wrong idea of how to do business in Latin America in their work at U.S. headquarters in Kalamazoo, Mich.

In the Mexico City plant, Miller believes, a management candidate will be able to learn better about Latin American-type operations, tricky problems with local personnel, local taboos, and all that's involved in dealing with Latin American governments. The Mexican personality, it's true, differs from that of other Latin Americans; but the Mexican still embodies many of the same problems and ways of doing business.

- **Roundabout**—Some Mexican ways are frustrating to the newcomer. A foreigner can't jump headlong into a business conversation, for example; he has to approach the subject, however urgent or ticklish, by way of the Mexican's family, his health, or an appropriate joke.

Many Mexicans, too—like most Latins—find it impossible to come right out and say "no." It gives them an unpleasant feeling; so they smile nervously and say "si." This throws off the newly arrived company representative who is counting on the "si" for an urgent government permit or a contract.

Business hours are baffling at first. If U.S. or British businessmen were to stick to their usual working, eating, and rest hours, "they would find themselves very lonely people indeed," says one U.S. engineer who has become "Mexicanized." Mexico City businessmen usually arrive late, eat late, don't go home until 6:30 or 7:00 or later. Popular businessmen's luncheon haunts are practically empty until 2:00. The business lunch—a way of life in Mexico City—can run on until evening, especially if it's with a government official who won't even start eating until 3:00.

- **The Bite**—Local business ethics can also be a puzzler. The "bite," or "mordida"—Mexican version of payola—was once about the only way of doing business. Payoffs to government officials, to the police, to get big contracts, were the rule. Nowadays, especially under the new government headed by Pres. Adolfo Lopez Mateos, it's tending to be the exception.

But some of the "mordida" tradition is still very much alive, and the resulting conflicting situation in business ethics often makes things awkward for the foreigner who wonders: "to bribe or not to bribe?" Many newcomers shy away from it; one U.S. insurance man says, "It's like blackmail . . . once you start,



WALTER HAMER of Cameron Iron Works calls at Pemex office regarding his new \$4-million oilfield equipment plant.

there's no end to what you have to pay."

- **Sensitive**—Though resentment toward foreigners—those from the U.S. in particular—recedes as Mexico grows stronger and pushes out into the international business and political world, it's still latent, and may burst out at some blunt, though well-meaning, remark from a foreigner.

"They need a lot of praise from a foreigner, and sparse, diplomatic criticism," says one European, who tells of secretaries running "weeping from the office if you scold too much on a badly written letter."

- **Too Close to Home**—Besides these problems common to most Latin American countries, Mexico City has its own particular troubles for the international company man. They arise from the fact that as air travel improves, the U.S. is just a few flight hours away, and visiting firemen from company headquarters and "good customers" can think up any number of excuses for a trip.

An urgent home-office telegram announces: "V.I.P. will be urcity on business . . . with wife . . . use red carpet"—and the whirl of nightclub rounds and guided shopping spree begins. Dave Clay, Pepsi-Cola's Latin American manager, has a handy angle. He takes his customers and company brass out to the Sunday afternoon bullfights, where he can combine his duties as host with his own enjoyment as a full-fledged bullfight "aficionado."

III. Sophisticated Living

Bullfights on Sundays are just one of the sophisticated diversions for Mexico City's international business community. "For me, every weekend can be a vacation," says Frank Loretta, E. I. du Pont de Nemours' man in Mexico.

Loretta has a rambling ranch-house home out in Ciudad Satelite (Satellite City), forsaking the usual residential suburbs frequented by the international crowd. Many executives head for the hills of Lomas, a sleek, residential section on heights overlooking the hazy, sprawling city. Some like the more accessible penthouse apartments in the Polanco area (five to 10 minutes from work). Others head southward to patio-style, Mexican-colonial homes in the old-world villages of San Angel or Coyoacan.

- **Expensive**—These areas are getting expensive, even by U.S. standards. A four-bedroom house with ample yard in Lomas or Polanco can easily top \$100,000. Rents can run from \$400 a month up.

Loretta went elsewhere because he needed more room—for his seven children and the company entertaining he has to do. A few weeks ago, he and his wife, Eleanor, entertained 300 Mexican mining engineers—du Pont customers—with a typical Mexican cowboy-style Mariachi band providing the music.

In the plush residential areas in town, land sells for up to \$70 a sq. yd.—a high price anywhere. Loretta, in a new development, could pick it up for less than \$10 a sq. yd. With Mexico City's 5.2-million population (third largest on the continent) growing by 7% a year, and the average family's spending power doubling in the last five years, the cost of land is expected to soar even higher.

Big families and heavy entertaining schedules require room. Loretta says "you need a lot of room" for a party like the one he gave for 300 engineers. His land covers around 4,000 sq. yd. altogether.

Plenty of help from domestic servants is also needed. Servants are especially needed when children are young. Children from the international business community become bilingual in the local schools, then later on are usually sent to the U.S. for prep school and college. Because of the proximity to the U.S., this is no problem.

Servants in the city (average pay: \$35 a month, living in) give international businessmen's wives freedom to rest, enjoy their families, even drift into relaxing activities such as painting and writing in a patio garden. Mexico City, a recognized world art center, seems to bring out creativity, with the works of such names as Diego Rivera, Tamayo, Orozco to be seen everywhere about town, even on office building and factory walls.

- **Magnet**—This pervading tone of fine art and of sophisticated living, enhanced by the nearly continuous springlike climate (65F to 70F average) and the proximity to other attractions such as Acapulco's Riviera-like beachfront, pro-



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vides an increasing magnet for some of the world's multimillionaires.

Antenor Patino, exiled Bolivian tin king, has his money in the exotic, new \$6-million Maria Isabela Hotel going up on the Reforma, with its promise of a "hanging swimming pool and indoor tropical forest." Also in the Mexico City investment swim are such names as Prince Alfonso Hohenlohe, one of the last of that old house, and Axel Wenner-Gren, Swedish industrial promoter. Hohenlohe owns a string of sports car agencies; Wenner-Gren was a founder of the city's fancy "Hipodromo de las Americas" racetrack.

Unlike the other internationally known characters, Bruno Pagliai, an Italian now become a Mexican citizen, made his pile in Mexico City. He is president of TAMSA, a money-making steel tube manufacturing company, and heads an ambitious organization called Intercontinental. With connections abroad, its specialty is rounding up Mexican capital to team up with foreign capital that wants to come in—providing the Mexican majority interest that the Mexican government aims at in such ventures. Pagliai was involved in the Hughes Tool and Taylor Forge oilfield equipment plants and the pending deal for a \$20-million Aluminum Co. of America plant in Mexico.

Pagliai's Intercontinental has connections not only with Wall Street but with Siemens and Krupp in West Germany. Another of his recent deals was arranging a credit of \$50-million for the Federal Electric Commission to buy equipment from Siemens.

Away from his business enterprises Pagliai, like the other international businessmen who have made Mexico City their home, knows the good life that the city offers. He is married to actress Merle Oberon, has a palatial home complete with a gallery of Renaissance art, and a number of automobiles.

IV. Paradise Lost?

Pagliai's bets are based primarily on what the Mexican government is doing. Some others in the international community are less pleased at the way the government is moving. The government seems to be figuring more and more in almost all phases of industry—and that fact is tending to make Mexico City life almost unbearable for some businesses and some international businessmen.

Doing business with Pemex and other government agencies, lucrative as it is, calls for tense, lonely, frustrating hours waiting out interviews in some anteroom before the competition (sometimes sitting in the same anteroom) moves in.

• **The Discontented**—"Every paradise must have its snake," says a grumbling U. S. mining engineer preparing to leave



RAY CRAWFORD (right), internationally known race car driver, built Mexico City's first shopping center, now plans to introduce Go-Cart racing to Latin American capital.

for good. The object of his gripe was another regulatory law on mining that the government is scheduled to bring out this month—said to have "ultimatum tones" for the foreign companies that control 85% of all Mexican mining.

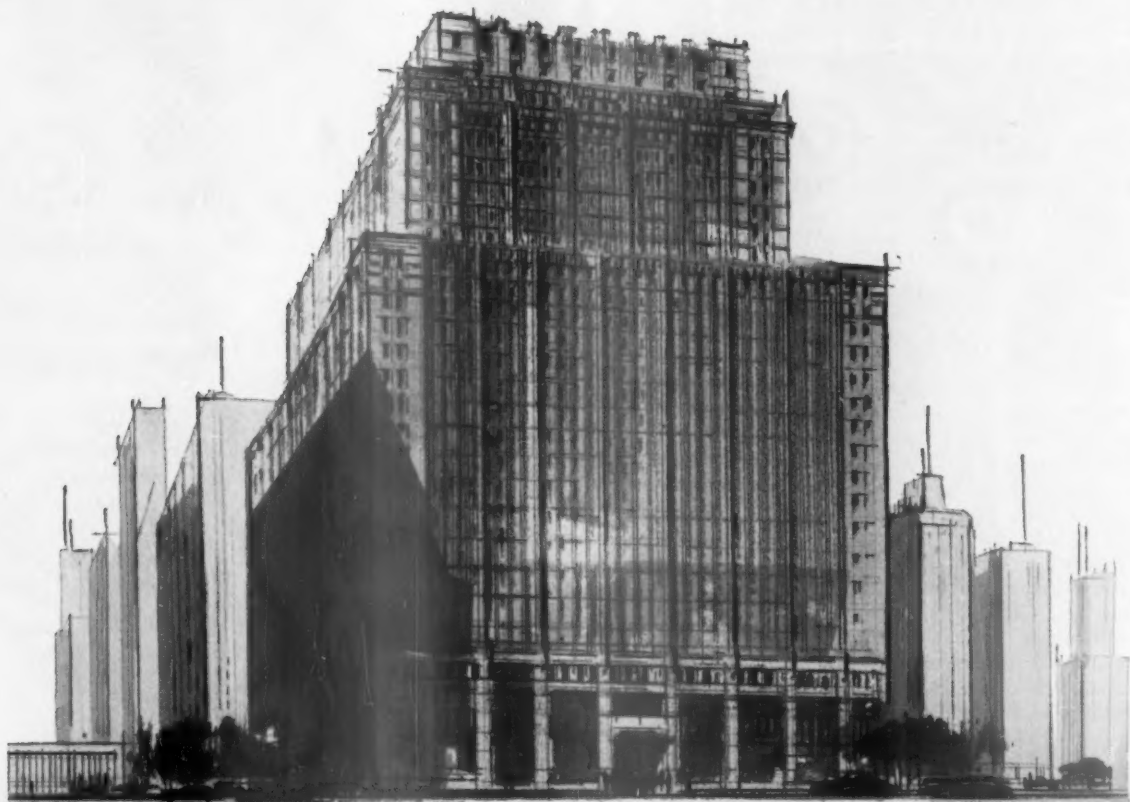
The government says it has to "move in where private industry fails or can't keep up," in order to stay ahead in the race between national production and national population (now 34-million, gaining at 3.3% a year). Some embittered businessmen call this just an excuse for eventual government control of "everything."

This small but nagging minority points to these recent happenings: sale of American & Foreign Power Co.'s Mexican utilities to the government after a squeeze between frozen rates and constant wage hikes; demise of Texas Gulf Sulphur's Mexican Isthmus mining venture; and government take-over of almost all petrochemicals production via Pemex.

• **The Optimists**—Alarming as this list may seem, the majority in Mexico City's international business community sees it as representing merely a shift from traditional foreign investments—oil, mining, utilities—to new industries and services. They point to the deal announced this month for Canadian engineering service companies to build a \$50-million synthetic rubber-petrochemicals compound for Pemex.

This majority group, perhaps inspired by the heady optimism of Mexico City's 7,400-ft. altitude, believes that by 1970 the city, with close to 10-million people, will be the capital of a thriving Latin American Common Market, and will be well on the way to join London, Paris, New York, and Tokyo as a major world business center. **END**

Climate by Chrysler



2 Park Avenue, New York City. Consulting Engineers: Sears and Kopf; Mechanical Contractor: Kennedy-Scheidt-Young, Inc.; Electrical Contractor: Theodore Kaish, Inc.

Chrysler Air Conditioning tailored to tenant needs installed a floor at a time in 27-story building

During the past five years, scores of Chrysler air conditioners have been installed at 2 Park Avenue, New York City. What has been one of the longest air conditioning jobs in history has also been one of the most successful.

By handling this 27-story building zone by zone and floor by floor, about 1400 tons of Chrysler equipment have been installed . . . with an absolute minimum of inconvenience to tenants. As tenants move in or renew leases, they are consulted as to exact air conditioning requirements. Each then gets the system best suited to his needs.

This unusual system is flexible—Chrysler supplies packaged units in a complete range of capacities, plus chillers and room units. And it is economical—all air conditioners tap into central electrical, air and water connections serving the entire building.

Whether your air conditioning job is as simple as a single office, or as complex as this 27-story building, it will pay to check into the many exclusive advantages of Climate by Chrysler. For facts and figures, contact your local Chrysler dealer (his name is listed in your Yellow Pages).



Airtemp Division, Chrysler Corporation, Dept. C-60, Dayton 1, Ohio
Canadian Distributor: Therm-O-Rite Products, Ltd., Toronto, Ontario

In Management

. . .

Telephone, Chemical Companies Donate Filmed Science Courses to Schools

Two companies are giving a helping hand to science education by providing on-film courses in physics and chemistry to high schools in areas where they operate.

General Telephone Co. of California has bought a one-year physics course for use of high schools and junior colleges in 33 southern and central California school districts. Columbia-Southern Chemical Corp. is paying one-fourth of the purchase price of a similar series in chemistry, for use in schools in Wetzel County, W. Va. Another fourth of the cost is being met by the county board of education, and the rest will be paid by the federal government under a matching program.

The two film series were produced by Encyclopaedia Britannica Films, Inc., with the help of a grant from the Fund for the Advancement of Education (BW-Apr.26 '58,p74). Each consists of 160 30-min. films offering lectures, demonstrations, and supplementary material. Prices range from \$14,000 to \$27,000 depending on how many films are ordered in color.

More than 700 schools are now using the physics films, first released in 1957, and more than 400 are showing the chemistry series, available since 1958. But, except for a Missouri contractor who bought the physics series three years ago, General Telephone of California and Columbia-Southern are the first business organizations to finance their use, according to Britannica Films.

Six high schools in Wetzel County, an area that has already had a lot of help in upgrading its science training from companies operating there (BW-Feb.20'60,p120), will share the chemistry course. The telephone company faces a much more difficult—and as yet unsolved—scheduling problem for the fall; already more schools have asked for its films than a single set can serve. Meanwhile, General Telephone is showing the films to its own employees.

. . .

GE Offers Do-It-Yourself Test To Potential Engineer Applicants

Engineers who think they might want jobs with General Electric Co.'s Light Military Electronics Dept. are taking a new do-it-yourself test that matches their technical knowledge with that of engineers already on the job. The idea is to let potential applicants judge their chances of getting a job at GE, and also to help them rate their own aptitudes and abilities. The scores are a private matter; not even GE knows the results.

The tests, which cover radar, microwaves, communications, and electronic packaging, have rating scales that reflect how well the test taker stacks up against working engineers with many different levels of experience. There is also a psychological inventory test to rate the aptitudes of potential administrators and engineering managers.

So far nearly 1,000 engineers have asked for the tests,

MORE NEWS ABOUT MANAGEMENT ON:

- P. 98—Lie detectors win more favor as a business tool.

whose availability was first announced in technical journals last month. GE offers two copies of the test to any engineer with a bachelor's degree or better who writes to Ron Bach, Light Military Electronics Dept., French Road, Utica, N. Y.

. . .

3M Offers TV Course in Reading To Employees and Community at Large

The extension of an employee education program to the community at large is the aim of a new televised course put on by Minnesota Mining & Mfg. Co. in the Minneapolis-St. Paul area. The first presentation is a 12-week course called Efficient Reading, broadcast over educational station KTCA—each Tuesday from 4:30 to 5 p.m.

At six locations on 3M property, 166 employees gather around TV sets for the programs—with quitting time at 4:45 p.m., the first half is on company time—and an unknown number of other viewers watch in their homes. More than 400 outsiders have sent in \$3 for the workbook that goes with the course.

The programs are recorded on tape the week before each session by Dr. James I. Brown, a University of Minnesota professor, who has given the course face-to-face to 3M employees in previous years.

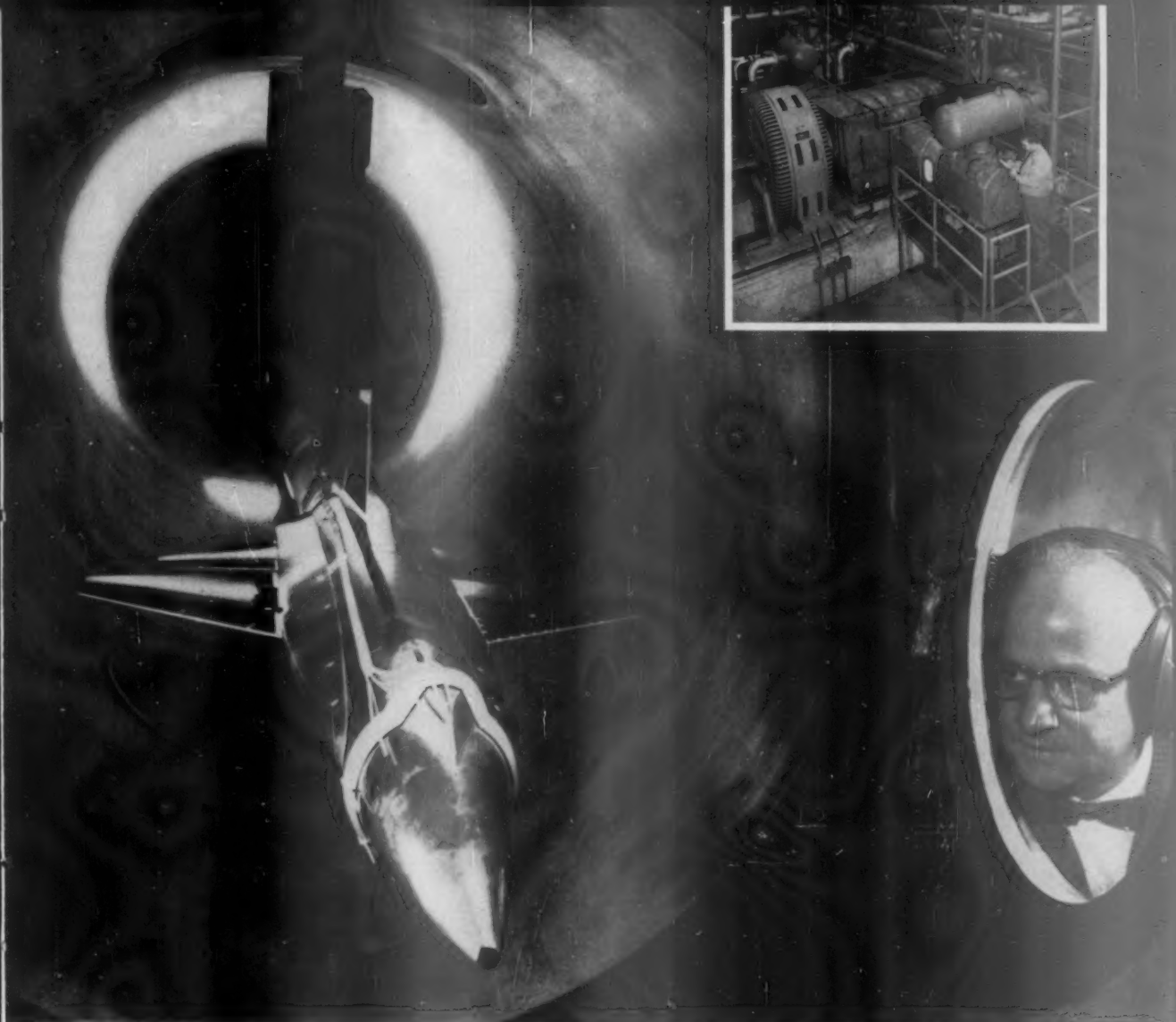
. . .

Management Briefs

Robert I. Livingston was elected president and chief executive officer of Walter E. Heller & Co. last week succeeding Walter E. Heller, 69, the commercial finance firm's founder. Heller will remain as chairman of the board. At the same time, four vice-presidents were made senior vice-presidents. They are: H. E. Abrahams, R. H. Carlson, P. E. Keller, and L. A. Petersen.

A majority of American cities conduct no training for their employees, according to the 1960 Municipal Year Book just published by the International City Managers' Assn. A survey of 1,044 cities with a population of over 10,000 showed that of the 41.6% that had training programs, over a third had courses only for policemen and firemen. Only 22 of the cities that answered the survey had a full-time training director—11 of these had more than 500,000 population.

The extent to which computers have enhanced the status of data-processing managers is indicated by a 489-company salary survey conducted by the magazine Management and Business Automation. A manager of computer operations averages \$218 a week, the magazine reports, while his non-computer counterpart, the machine accounting manager, makes only \$163 a week.



R. F. Kymer, Engineering Department, The Cooper-Bessemer Corporation, explains...

How we help produce 15,000 m.p.h. air flow for missile testing

Arnold Engineering Development Center, Arnold Air Force Station, Tennessee, includes today's most advanced wind tunnels. They can simulate missile speeds up to 20 times that of sound. The Center is part of the U.S. Air Force's Air Research and Development Command and is operated by ARO, Inc.

A tough problem here was to provide a large volume of high-pressure air, completely free from oil contamination. Cooper-Bessemer met the need by engineering and building the only large compressors with carbon pistons and piston rings capable of a discharge pressure of 4000 psi. These 5-stage units with non-lubricated cylinders, operating approximately 20 hours a day, will provide *oil-free* air to nine different test tunnels from a high pressure storage tank. One of the units is shown in the inset photo.

Here is another field in which Cooper-Bessemer engineering know-how and advanced products have helped solve a compression problem. Call our nearest office for assistance in your planning of compressor or power facilities.

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ENGINE, TURBINE OR MOTOR DRIVEN

Business Uses the Lie Detector



LIE DETECTOR test is conducted by John Lannig (foreground) of William S. Burns International Detective Agency, Inc. Below are results of another test.

Like the man in the picture at left, thousands of Americans will be put through lie detector tests this year.

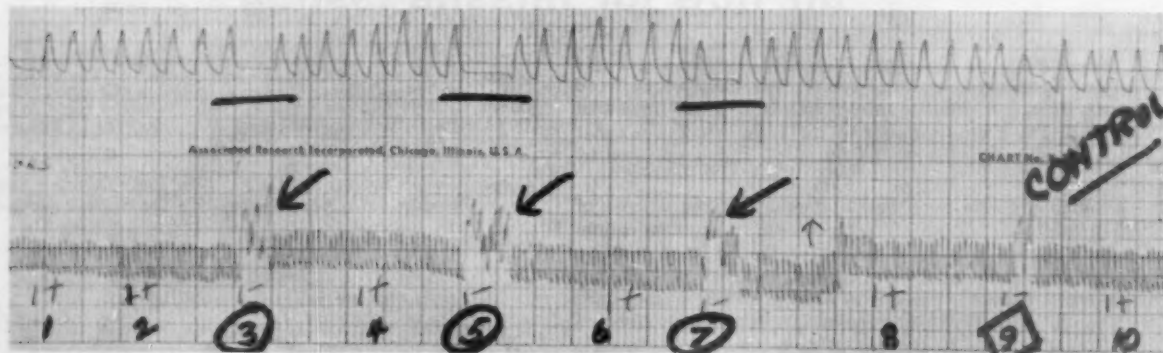
Hooked up to instruments that measure their pulse, breathing, and perspiration, they'll be asked questions like these: Did you take 100 gallons of gasoline from our warehouse last week? Have you ever stolen anything from the company? Have you ever been convicted of a crime?

As they answer, moving pens make lines like the ones illustrated. Presumably the results will show whether they're telling the truth or not.

• **Increasing Use**—In most cases, these truth tests will be given by industrial and commercial companies to their employees. Law enforcement agencies provide only about one-fifth of the business done by lie detector services. The rest comes from manufacturers, merchandisers, and service organizations that want to know whether their workers are, ever have been, or might become dishonest.

More and more companies are making use of the lie detector on a more or less regular basis. Long-established concerns specializing in such examinations, like Chicago's Keeler Polygraph Institute and John E. Reid & Associates, say their volume of business is eight to 10 times what it was a decade ago. They each give over 3,000 tests a year. The New York office of the William J. Burns International Detective Agency, Inc., which offers lie detecting as one of its industrial security services, reports that phase of its activity has more than doubled in the last year. More than 400 other firms now conduct such tests for management and police, and new organizations are springing up all the time.

• **Heavy Losses**—The reason seems to



POLYGRAPH TEST patterns above suggest guilt. Subject did not react to irrelevant questions 1, 2, 4, 6, 8, 10 (sample: Do you sometimes smoke cigarettes?) But his respiration (top line) and blood pressure (bottom line) were affected by pertinent questions

3, 5, 7: Do you know who took missing money? Did you take missing money? Do you know where money is now? Question 9, the so-called control question, was one to which everyone is supposed to react; that shows whether the individual tested is normal.

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V8.

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h.p.

350

h.p.

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of their size and
horsepower built from
the pan up for
construction machines!

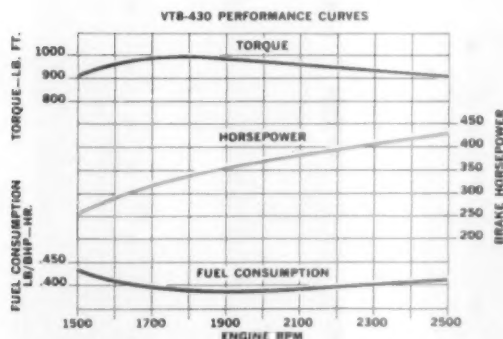
VT8-430

THE DIESEL THAT DELIVERS THE PERFORMANCE OF ENGINES WITH 4 MORE CYLINDERS! 430 horsepower! 990 ft. lbs. peak torque! 950 cubic inch displacement! 7 lbs. per h.p.! Less than 59 inches long! Put these facts together and you have the rugged Cummins VT8-430 TURBO-DIESEL® Engine—the diesel that's as much as 40% smaller and more compact than engines in current use delivering equal power.

From its very concept, the VT8-430 was designed to give you the benefits of turbocharging. Not only does turbocharging pack more power into the engine, but it assures full rated horsepower up to 10,000 feet. Cummins engineers have developed a lightweight, perfectly-balanced turbocharger that gives fast acceleration—trouble-free performance. Further, the VT8 operates at low exhaust temperatures assuring long life for both the engine and turbocharger.

Cummins puts the engine accessories on top of the block, in the "V" formed by the cylinder banks. This means greater accessibility, easier maintenance, less costly repairs. Internally, new insert-type injectors are much easier to install and service. Cummins wet-type cylinder liners require less time to remove, less care to install. These are only few of the many advantages of this new Cummins Construction Diesel.

All in all, the VT8-430 gives you a combination of high performance, low fuel costs (see chart below), long operating life as well as a lower initial investment than the larger engines in its power class. You can't beat this kind of economy!



Curves represent performance at altitudes to 10,000 ft. with 90° F intake air temp.

V8-350

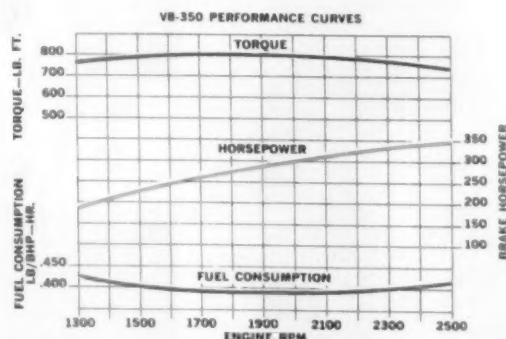
NEVER BEFORE, SO MUCH POWER FROM SUCH A COMPACT, NATURALLY-ASPIRATED DIESEL! Here's rugged construction power! 805 ft. lbs. peak torque—*naturally*! (See curves below.) Like the VT8, this engine has a piston displacement of 950 cubic inches and rotates at 2500 rpm. This produces 350 horsepower in a package that's less than 57 inches long.

The V8-350 has many new features to reduce operating costs. New internal fuel and oil lines eliminate threaded connections, damage to exposed lines. Cummins' own 12 cfm air compressor is supplied on both engines. Of simple, one cylinder design, here is the only unit in the trade backed by a 3600 hour or one year warranty.

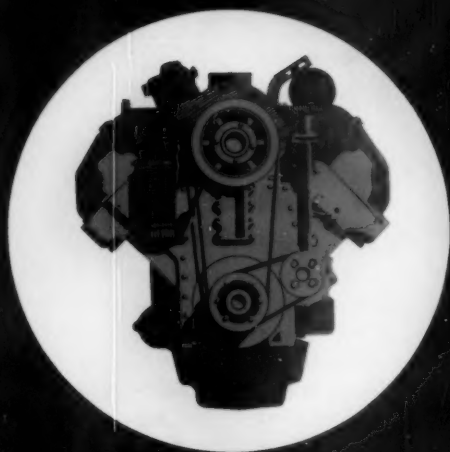
Another practical advantage of the V8 Diesels is the 2500 rpm. This gives you an ideal relationship of horsepower, torque and speed to permit the use of lighter, more compact, less costly transmissions. Your initial investment is reduced as well as the maintenance cost during operating life.

Cummins exclusive PT fuel system also reduces maintenance and fuel costs. It operates on lower priced No. 2 diesel fuel . . . has fewer parts than any other diesel fuel system. The pump is mounted in the 90° angle formed by the cylinder banks. Also possible, on the V8-350 . . . either the intake or exhaust manifold can be placed inside the "V" to fit your application requirements.

Get the complete profit-making story on these new compact V diesels, and on the models in which they are available, from your nearest construction equipment representative or Cummins Distributor.



Ratings corrected to conditions of 29.92" hg (sea level) barometric pressure; 60° F intake air temp.



Cummins has done it again! Built two V diesels in the much needed 350-450 h.p. class especially for construction machines. This opens a new world of *Cummins Diesel Economy* for big scrapers, off-highway trucks, shovels, front end loaders and other equipment that demand compact yet large bore, big displacement engines.

The 350 h.p. and the 430 h.p. VS engines are construction diesels from front to back, top to bottom. Every kind of application—every operating condition—was considered in their design. The VS's represent the most advanced thinking in construction power on the market today! New features and major improvements combined with Cummins proven basic design make them the most profitable source of power you can own or operate. See back page for details.



CUMMINS ENGINE COMPANY, INC., COLUMBUS, INDIANA

be a growing security-consciousness in business. There's no doubt that employee dishonesty is a big management problem.

A million or more people steal from their companies every year, Roy C. Taylor, Akron, Ohio, business control analyst, told the American Management Assn.'s spring insurance conference last month. Consultant Norman Jaspán puts business' daily loss of cash and property at \$4-million (BW—Feb. 27 '60, p.109).

Nobody really seems to know whether this means dishonesty is increasing in business. Howard Winter of Burns' industrial management controls department thinks it is; he says people "are less honest now than they used to be; too many of them live beyond their means." Other security men think it just seems that way because better accounting methods are pinpointing more losses.

In any case, more and more managements are getting concerned about the disappearance of money, property, and corporate secrets. Many of them are buying the security agencies' argument that most people need help to stay honest, and some are turning to the lie detector as one source of such help.

• **Disputed Technique**—Not everybody is enthusiastic about this trend. For the lie detector, more scientifically known as the polygraph, is one of the most controversial tools of corporate security.

Many question the validity of its finding, pointing out that after some 30 years of police use it has not yet won admissibility as courtroom evidence. Other critics argue that indiscriminate lie detector tests are an insult to employees if not a violation of their rights. Unions often take this stand, particularly in liability cases. A Massachusetts law prohibits employers from requiring employees or job applicants to take the tests.

Much of this opposition, the lie detector examiners claim, stems from public misunderstanding of the polygraph. The machine itself, its operators emphasize, is nothing more than a diagnostic tool like an X-ray machine or a stethoscope; its reliability depends on the way it is used by the man who reads the graph. "It should be understood," says Keeler's Pres. L. H. Harrelson, "that a polygraph examiner is an expert giving an opinion just as any other expert who testifies in court, be he doctor or handwriting analyst."

• **Basic Idea**—The basis of the whole technique is the idea that guilt feelings induced by lying produce physiological changes in the liar. The polygraph is simply a combination of devices for recording these changes. Most models measure pulse rates, blood pressure, respiration, and sometimes perspiration rates.

Usually the person being tested is asked a series of questions, only a few of them directly pertinent to the subject being investigated. His reactions to the irrelevant questions establish his normal pattern of response; when he lies, the physical consequences of his guilt feelings show up on the graphs.

Actually, of course, it's not quite so simple as that. Both the planning of the questions and the interpretation of the results demand a good deal of specialized knowledge. The Keeler Institute, which runs one of the best known schools for would-be polygraph examiners, puts its students through six weeks of classroom training in physiology, psychology, and polygraph techniques before field training; the Reid outfit requires a six-month apprenticeship before it will send a man out on a job unsupervised.

• **How Accurate?**—On the whole, though, the polygraphers claim, their findings are astonishingly accurate. Associated Research Corp., one of the handful of manufacturers in the field, says that in laboratory experiments, where it was possible to know whether the individual tested was really lying or not, the examiners have been right about 95% of the time. In industrial and law enforcement use, a confession is the only real check. Polygraphers' findings of deception have been followed by verified confessions in about 80% of personnel cases and in about 60% of criminal cases, according to Associated Research.

Although improvements have been made in question technique, the machine itself has changed little since it was conceived in the 1920s at the Berkeley (Calif.) police department and developed at Northwestern University's Scientific Crime Detection Laboratory. It got its first publicity after Chicago's 1929 Valentine Day massacre provoked public demand for better detection methods. Banks and retailers promptly picked up the device for investigation of losses, periodic checking of employees, and testing of job applicants.

But until recent years its use grew slowly. Virtually the only customers are police departments, research laboratories, and independent lie detection examiners. Probably no more than 2,000 units have been made, and even now annual sales, including replacements and conversions, probably do not exceed 200.

• **Catching Corporate Thieves**—Chiefly, businessmen use the polygraph in much the same way policemen do—to track down missing cash and property. The device's unacceptability to the courts is no barrier in a business investigation since the company is seeking a confession, with identification of accomplices and possibly recovery of the lost valuables, rather than a conviction. On

internal company cases, says Burns, a trained team of investigators will get confessions about 60% of the time; the polygraph gets them in 80% of such cases.

Another common industrial application is periodic personnel checks. Some companies run regular tests on shipping and receiving personnel, purchasing agents, buyers, door-to-door salesmen, tellers, bookkeepers, and others in a good position to make off with money or goods. Auto, toy, dress, and other design-conscious companies check workers in sensitive jobs to guard against information leaks; defense contractors and the military forces examine personnel involved with secret projects.

• **Startling Results**—The questions put in periodic personnel tests tend to be vaguer than those used in an actual investigation: Have you been stealing from the company? Do you know anyone stealing from the company? Do you have any merchandise stolen from the company in your home now? But the results are sometimes startling.

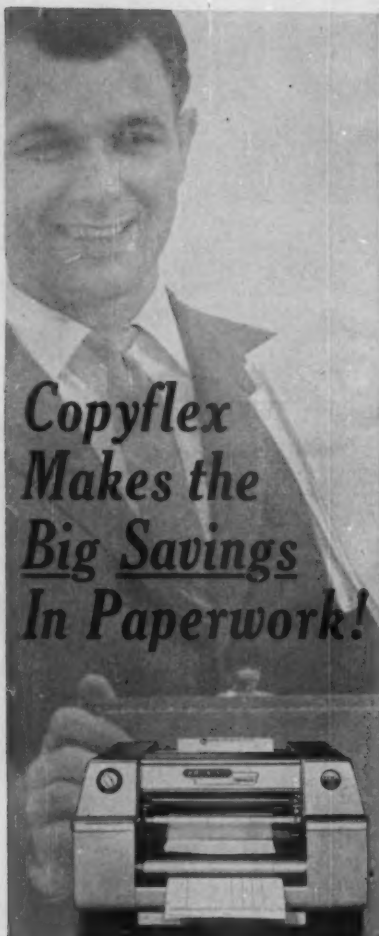
One Midwestern bank got 80% of its workers to admit thefts averaging \$2 a week or more. A Chicago bank says it found that "... although certain employees were not stealing, they were borrowing sums to tide them over until payday. At times, these amounts were slow in being replaced. Such laxness can easily go one step farther—embezzlement."

One supermarket operator discovered 90% of its employees were taking home one or two dollars a week or more in cash or merchandise—for a grand total of more than \$14-million a year. But re-examination six months later turned up only 3% as repeaters.

Often employees are not fired for these small thefts. Instead, many employers claim, the prime advantage of spot checks is that they serve as a psychological deterrent to dishonesty. Says Leo Bramson, president of Bramson's, Chicago department store: "The best workers are those who have been caught once. They have too much on the line to risk the embarrassment of being caught again." Generally, supermarkets say, only about 10% flunk the second test.

• **Screening Device**—Pre-employment testing, though still small, is probably the fastest-growing polygraph application. The lie detector is used to verify the statements on the application blank (typical question: Did you tell the complete truth on the application you completed?) and to uncover such undesirable attributes as alcoholism, a prison record, or pregnancy.

A St. Louis drug distributor uses pre-employment screening to identify narcotics users. Many managers of department, variety, and food stores, which use a lot of temporary help, find the lie



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• **Unhappy User**—Not every polygraph experience turns out happily. A steel fabricator, upset because some \$100,000 of special steel stocks had disappeared from the yard, put all its employees through polygraph tests without telling them the reason. The company got its steel back, but it was so embarrassed by the droves of workers who broke down and confessed stealing pencils and paper clips that it vowed never to use a lie detector again.

Most polygraph users are more enthusiastic about the results. Bramson says he cut his losses in half the first year after introducing periodic personnel checks. One supermarket executive claims he nearly halved his cash and inventory losses each year in four years of polygraph use. After three years of polygraph screening First Distributors, a Chicago mail order house handling a lot of jewelry, has reached this conclusion: Losses have been cut \$6,000 to \$10,000 a year and insurance premiums have been reduced approximately 20% a year.

Chicago's Lake Shore Bank, which screens all job applicants and reruns employees after five years, reports no dishonesty trouble in 25 years. One out of three applicants who otherwise seem acceptable fail the lie test, the bank says, and a significant percentage never turn up for the test at all.

• **Skepticism**—Some businessmen won't use lie detectors because they refuse to believe their control systems are weak or their workers are crooked. Says one major Indianapolis banker, "I would rather have dishonest employees than know who they are." Security men, of course, scorn this ostrich-like attitude. Thefts never remain petty, warns John Davis, who operates a security service in Chicago. "Like a cancer, they grow," he says.

But plenty of managers remain skeptical. Many are not convinced the testing is worth the money. Rates normally run \$20 an hour or more (the average pre-employment test takes about half an hour although a large group can be run through faster).

That goes back to the question of validity, of course. The courts' attitude has done lie detector testing a lot of harm, although the polygraphers think they are making some progress on this front. A recent California court decision upheld dismissal of policemen who refused to take lie tests. Earlier this year true bills were brought against a group of Chicago policemen as a result of information obtained through lie tests.

A number of companies that use polygraph examinations in hiring seasonal help ask the potential employee to put up the test fee. If he passes,

the company refunds his money; if he fails, he forfeits it. The result is a kind of self-screening, plus a lower cost to the company. But cost is far from being the only objection to the polygraph.

• **Dissension**—Even more disturbing to potential polygraph users is the dissension within the polygraph fraternity. The Keeler and Reid organizations are at odds on minor points of technique (such as the type of questions that should be asked) and both are highly critical of all other training and equipment. They accuse most other polygraphers of charlatanism and even corruption, asserting that they would not trust themselves to be examined by more than a few dozen of their competitors.

There seems to be some basis for these charges. One self-trained Midwestern examiner, who advertises "confidential lie detection tests and honesty screening," states frankly, "I have lie detectors to back me up, but usually I can look applicants straight in the eye and tell whether they are lying or not."

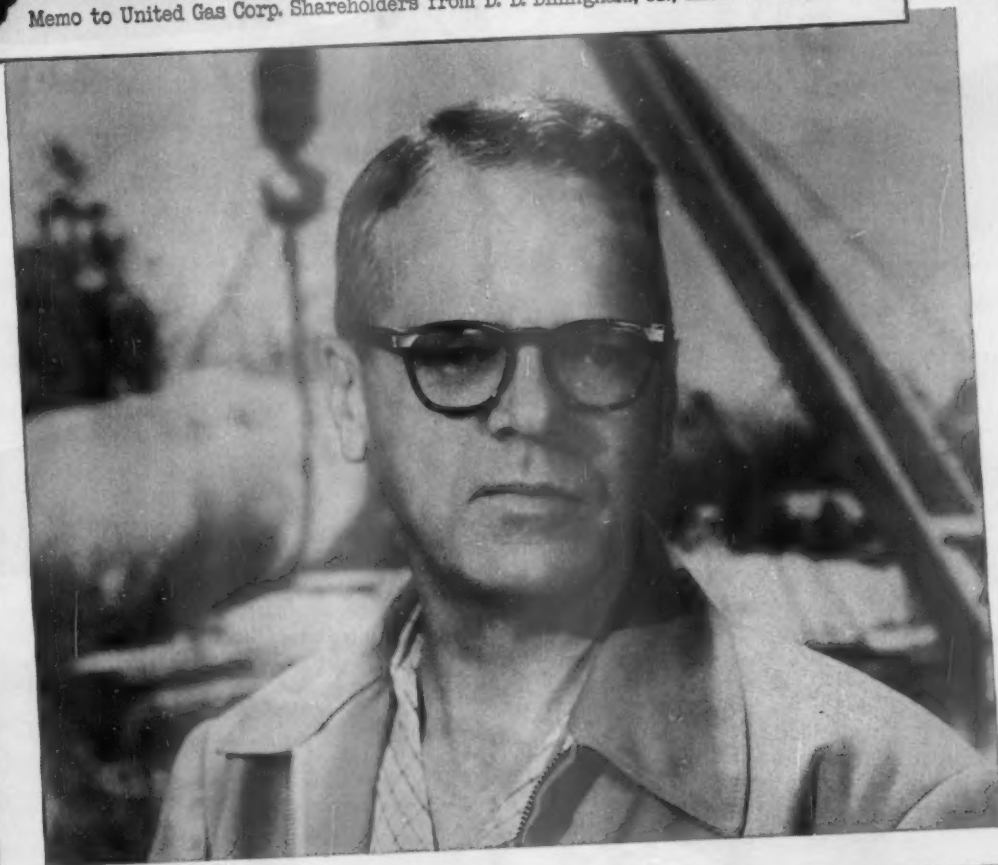
• **Lack of Regulation**—The big problem is lack of regulation. Although two national associations have set standards for their own members, no state has yet set minimum standards for licensing polygraph examiners. As a result, the Keeler and Reid organizations can cite examples of polygraph examiners who were fired for corruption and then set up their own investigation agencies, sometimes in the same city, with no law to stop them.

"Gaining public acceptance would come a lot more readily," says Lynn P. Marcy of the Keeler institute, "if we had a legal status as a profession." In Illinois, at least, polygraphers hope for action on a licensing bill in the next legislative session. Similar bills have been introduced in Oklahoma and Ohio.

Polygraphers also would like to be on a retainer rather than a per-test or per-hour basis. The associations would like to see their members do more consulting work in the whole area of industrial security control.

Law-enforced standards, the major agencies feel, would help to lift the stigma associated with lie detectors because of the sometimes lurid publicity they have received in police cases. As a result, many companies shy away from the polygraph, saying they would "re-sort" to it only if other methods of detection failed. For one thing, they fear employee objections, despite the claims of polygraph-using companies that lie detector tests have actually improved morale in their firms. One Milwaukee banker suggests: "If, say, every bank in our city adopted polygraph tests as standard procedure, then there would be no question of a stigma." **END**

Memo to United Gas Corp. Shareholders from D. D. Dillingham, Jr., Exec. V-P, Pipe Line



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Landing gear hit a carrier flight deck with a mighty wallop. How well will the Douglas A4D Skyhawk attack bomber withstand this impact? Tatnall Metal-Film strain gages developed by Budd's Instruments Division provided the answer, as part of a massive testing program for the Skyhawk. These gages are smaller than a paper clip, and may be only a thousandth of an inch thick. Designed to translate physical strain into electrical terms, they're cemented to the landing

gear and electrically connected to a recording instrument. As the landing gear flexes under impact, the strain gages flex with it, and flash to the recorder the exact amount and direction of principal stresses and strains. Amazingly accurate, strain gages are valuable tools in the testing of supersonic aircraft and missiles. They represent one aspect of Budd's diversification in the study, testing and fabrication of metals. The Budd Company, Philadelphia 32, Pa.

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THE **B** **II**
Budd COMPANY
 OFFICES AND PLANTS IN PRINCIPAL CITIES

In Research

Anemic Mice Cured by Transplanting Cells; Technique Hopeful for Men

Scientists at the Roscoe B. Jackson Memorial Laboratory in Bar Harbor, Me., have managed to cure a type of inherited anemia in mice.

According to the American Cancer Society, this means that other types of inherited defects may also be cured by similar treatment. It also means that the old dream of transplanting tissues and organs from one person to another may someday become a reality—though this depends on whether continuing studies show that man and mouse respond alike.

To cure anemia, Jackson researchers took embryonic healthy mice and transplanted their blood-manufacturing fetal liver cells to adult anemic mice. In 80% to 90% of the cases, the injected cells rapidly began to produce normal blood in the anemic mice, which then lived to a healthy old age.

Even more exciting was a later discovery: that animals cured of anemia this way often would accept grafts of other tissues and transplants of organs from donors with the same type of genes.

There hasn't yet been time to check whether the same techniques can be used on man. Theoretically, though, blood-forming spleen, liver, or marrow could be removed from aborted or stillborn fetuses and stored like blood in a blood bank. All stored tissue would be labeled to identify the type of genes, just as blood is labeled with its type, RH factor, and such.

People would be similarly typed. When they needed skin grafts or a new kidney, say, because of burns or disease, they would get an injection of stored embryonic cells with genes matching their own. This would prepare them for a transplant from a compatible donor.

The Bar Harbor experiments turned up another interesting point. With mice, it apparently makes little difference whether the animal has been treated with X-rays before a transplant. It has been common for laboratories to irradiate their animals before attempting transplant experiments. The radiation destroys the body's ability to form antibodies hostile to grafted tissue. But sooner or later most grafts wither away anyway—or, even worse, they produce antibodies that destroy the host.

If the gene types are compatible, however, radiation is apparently not necessary, and the grafts are generally permanent.

How to Dispose of Atomic Wastes?

World Experts Offer Some Answers

The disposal of highly radioactive wastes in the sea cannot, at present, be recommended as a regular practice. But, in the light of current technology, sea disposal of radioactive wastes that have a low or intermediate

MORE NEWS ABOUT RESEARCH ON:

- P. 111—Freezing, as a method of desalting water, will get a full-scale test with award of an Office of Saline Water contract early this fall.
- P. 119—The use of computers to identify and recognize the spoken word offers a great challenge, major technological problems to researchers.

degree of activity is perfectly safe under controlled and specified conditions. That was the conclusion reached by an international panel of atomic energy experts, reporting to the Director General of the International Atomic Energy Agency in Vienna late last month.

The panel, working from the most recent research reports on atomic safety procedures, makes one exception for low-level radioactive disposal into the sea—that it should not include disposal of waste from nuclear-powered ships. Other low-level waste, it concludes, should be able to be safely released into designated disposal sites, provided that disposal crews conform to specified rules for that particular site.

To prevent possible buildup of pollution in any area over the years, the panel further suggests that all nations be asked to monitor their own disposal sites, keeping full and complete records of how much and what kinds of radioactive materials have been dumped.

For wastes from nuclear ships, the panel proposes that a record be maintained on every ship for inspection by port authorities. If disposal is necessary, it should conform with conditions laid down by local authorities. Disposal in international waters should be allowed only under strict regulations set up by international agreement.

Bureau of Standards Accelerator

To Produce Intense Electron Beams

A linear accelerator capable of producing one of the most intense high-energy electron beams in the world will be installed by the National Bureau of Standards at its Gaithersburg (Md.) laboratory. The bureau says the accelerator will enable it to keep pace with the latest technology in the field. Industry is already using electron beams to sterilize pharmaceuticals and food, to polymerize plastics, and to vulcanize rubber. With cheaper accelerators due soon (BW—Aug. 29 '59, p. 50), this list is certain to grow.

Providing basic data, standards, and measurement techniques for this new branch of radiation physics is part of the bureau's responsibility in the field of national standards of physical measurement. So it has designed its accelerator to produce electron beams with energies continuously variable from 10 to 100 Mev and with power outputs on the order of 40 kw. This power output is about 100,000 times greater than the energy range that the bureau has previously been able to obtain.

**why
some
figures
aren't
so
hot**

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Freezing the Salt Out of Water

Some time this fall, one or the other of the two freezing processes for desalting water illustrated at the right will in all probability be given the first full-scale test ever tried on this sort of technique. Actually, five freezing methods have been proposed to the Interior Dept.'s Office of Saline Water. But these two, one developed by Carrier Corp., the other by Blaw-Knox Co. seem well in the lead in the race for an official large-scale test.

Small pilot-plant demonstrations of freezing have impressed OSW experts. Quite a few of them have suggested, privately, that freezing may soon supersede the traditional technique of distilling by evaporation in a world that increasingly needs an economically viable method for desalting water in bulk.

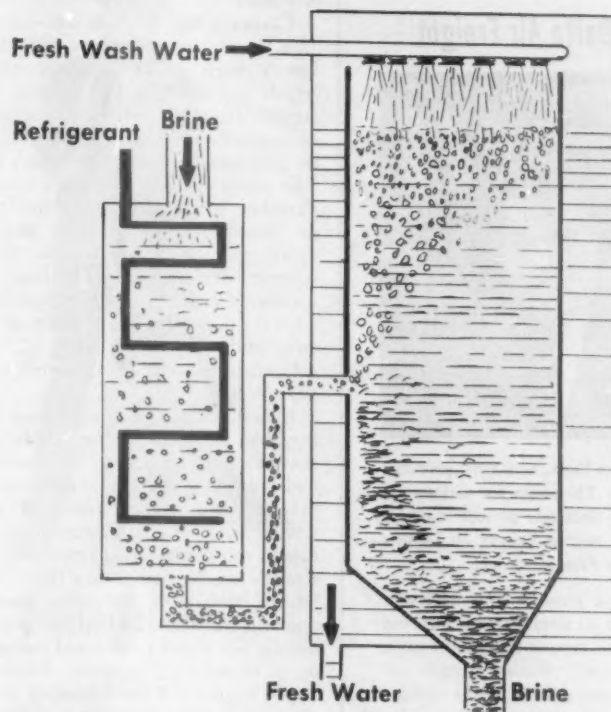
• **Initial Cost**—The catch has been—and still is—that the initial costs of setting up a freeze-desalting plant will always be greater than for an evaporation setup of equal capacity. Hence OSW feels that the evidence of a commercial-scale test is needed to prove that freezing is really more practicable than evaporation. Not until that test has been made can the U. S. launch any really major program of building water conversion plants.

Cost dictates that only one freezing method be used for the big test as against evaporation. Of the five freezing methods now in test stages, the Carrier and Blaw-Knox systems can offer much larger bodies of research and development data, thanks to their modest-sized pilot plants that they have been operating for some time. The betting is that one or the other will get the nod—though there's an outside possibility that some sort of combination may be tried. Of course, there's always the chance that in the longer run, some still undreamed of freezing method may turn out to be better than any of the present candidates. Meanwhile,

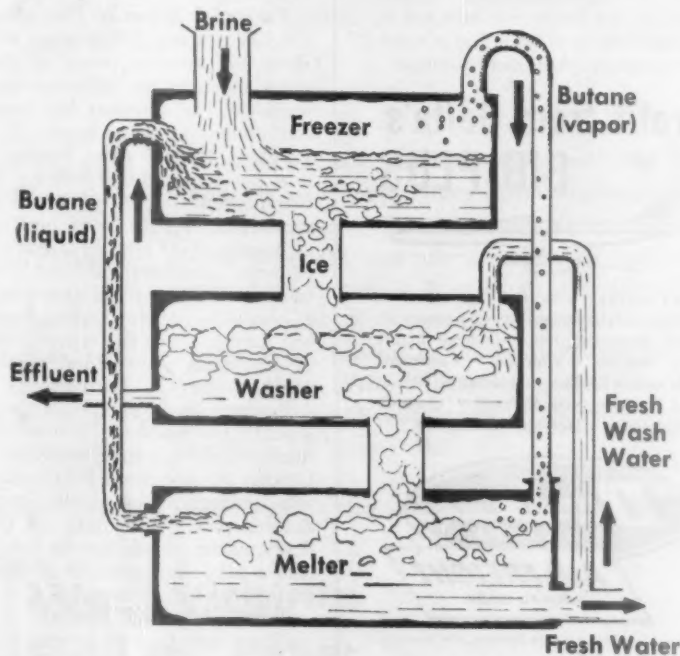
The Carrier process flash-freezes sea water in a vacuum by piping a refrigerant through the chamber. Ice crystals are washed free from brine; water vaporized in the freezing is removed either mechanically or by an absorption unit, providing more fresh water.

The Blaw-Knox process flash-freezes water by direct contact with a volatile hydrocarbon that won't mix with water, such as isobutane. The pure ice is washed free of brine, and then melted in a continuing cycle with the butane.

CARRIER'S PROCESS



BLAW-KNOX PROCESS



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**... an obvious advantage to desalting water by freezing
is that it takes less energy to freeze water than to distill
it ...**

(STORY on page 111)

here's a thumbnail sketch of how the five stack up:

Carrier Corp. flash-freezes sea water in a vacuum chamber at a temperature low enough to produce ice crystals, which are then washed free of brine (upper diagram). In the freezing, part of the water vaporizes, thus producing an additional source of purified water. The vapor is either evacuated from the chamber by mechanical means or by an absorption unit. Either way, the vapor can be handled only by big-volume devices, with existing techniques. Carrier is already operating a 15,000-gal.-per-day pilot plant at Syracuse, and will start building a 35,000-gal. setup this summer at Harbor Island, near Wrightsville, N. C.

Blaw-Knox Co. also uses flash freezing, but by direct refrigeration, using the Wiegandt process. An immiscible hydrocarbon such as isobutane is brought into contact with sea water, which turns to ice. Because it uses a direct refrigerant, this method needs a much smaller compressor than Carrier has to have. On the other hand, its operation is complicated by having to handle two fluids (water and isobutane) in a closed-cycle system. Blaw-Knox hopes to prove it has managed to handle this complication when it builds a 35,000-gal. plant this summer at St. Petersburg.

Fairbanks, Morse & Co., using the Zarchin process, differs from the two above by vaporizing some of the seawater in order to refrigerate the remainder. The company has been concentrating on thirsty Israel. It has a 6,000-gal. research plant running there now, and hopes to complete the first of two identical 250,000-gal. plants in the summer of 1961, at Elath, on the Gulf of Aquaba. F-M says the Zarchin process needs a minimum amount of power to operate, which could give it an edge in the U.S., where desalting methods will have to shade the competitive cost of developing new natural supplies of water.

Engineering teams, clocking the Zarchin process, have convinced F-M management that the process is sound. Gordon R. Anderson, F-M's executive vice-president for operations, says "the Zarchin process will mean the greatest development and change for Fairbanks-Morse since the invention of the scale in 1830."

Battelle Memorial Institute is working on a zone-freezing process that exploits the different solubility of salt in water and in ice.

Struthers Wells Corp. and Scientific Design Co. have announced joint development of a crystal-growing technique that is said to simplify the complicated process of separating pure ice from brine.

Researchers have been intrigued for a long time by the idea of desalting water by freezing rather than by distilling. An obvious advantage is that it takes less energy to freeze water than to distill it. With freezing, there is little trouble with scale and corrosion. The process is simple and needs little maintenance.

There are blemishes to match these charms in the freezing method, though. Freezing the fresh ice crystals out of saline water is just one step of the separation process. When saline water is frozen, brine is trapped between the ice crystals. That means a tricky second step of separating solids and liquid.

• **Placid Hunt**—For years, researchers tinkered with this second phase in a leisurely way. Especially in the universities, the tendency was to consider it an academic teaser to be mulled over rather than as a commercial need that called for urgent assault.

Until the 1950s, this ho-hum attitude extended far beyond the labs. A few chronic worriers kept wondering about U.S. water requirements in the far future, but mostly they drew nothing but yawns.

One of the worry-warts was the U.S. Geological Survey. It poured forth a stream of Cassandra-type statistics. Thus the survey estimates that today the total readily-available supply of fresh water in the U.S.—that means the economical use of all potential sources—is 515-billion gal. per day, current consumption is only 312-billion gal., but this is expected to rise to 400-billion gal. by 1970, and to 450-billion gal. by 1975—only 15 years from now.

This looks more serious when you realize that even now, with potential supply still 200-billion gal. ahead of actual consumption, there are areas—such as Texas, Southern California, Arizona, and New Mexico—that suffer severe water shortage almost every summer. In 1957, more than 1,000 cities and communities around the nation had to restrict the use of water. In Dallas, people lined up to buy water at 50¢ per gal.—double what they were paying for gasoline.

• **Tide Turns**—The worriers, led by the Geological Survey, had been pouring out their gloomy statistics for a long time. By 1952 they managed to impress Con-



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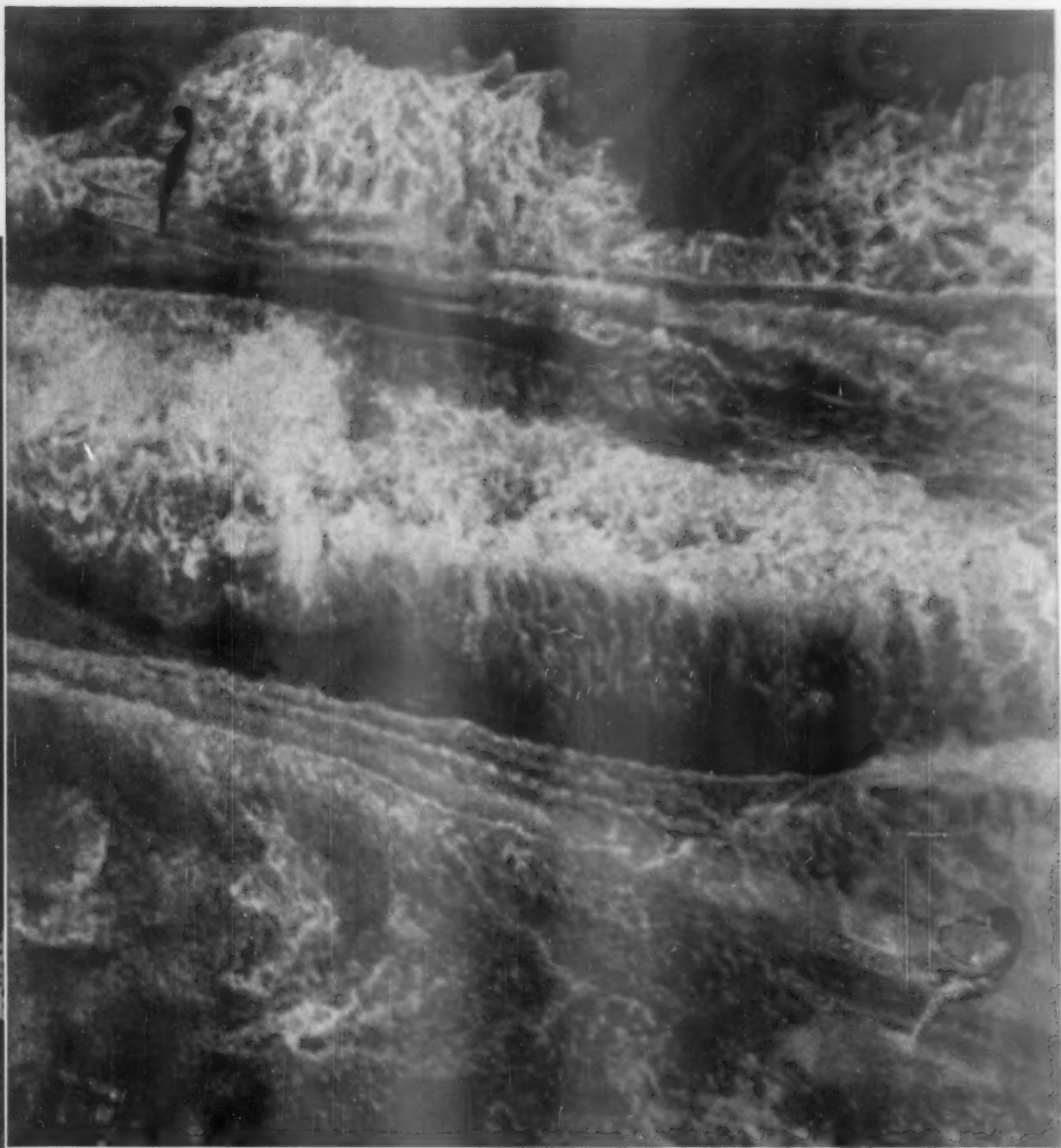


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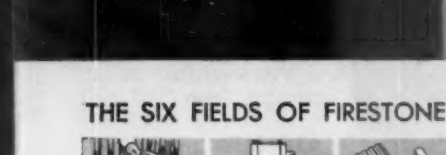
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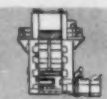
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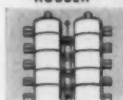
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... freezing is the only method of desalting water that looks economically feasible up to now ...

(STORY on page 111)

gress, which appropriated \$2-million for the search for an economical means of converting sea water. The Office of Saline Water was set up to direct the job. Three years later, pilot plant activity had started; since then a budget expanded to provide \$10-million through 1962 has made it possible to build 11 pilot plants for testing assorted methods.

All that money, plus some gains in technology, has not been able to produce a really economic method of desalting water, however. After all, desalting can't cost more than 50¢ per 1,000 gal. if it is to compete with fresh water obtained by other means.

No one has managed to come close to this yet.

The most efficient distillation plant now running—on the Dutch island of Aruba in the Caribbean—runs at a cost of \$1.75 per 1,000 gal. Solar distillation, even with the sun providing free energy, is so expensive to install that the fresh water costs run around \$2 per 1,000 gal.

In theory, membrane processes, which screen out the dissolved salts by a combination of thin membranes and electricity, should come close to the 50¢ cost target. The trouble is that the membrane system is efficient only on brackish water with low concentrations of salt; on sea water and brine it falls below standard.

• **Dark Horses**—By a process of elimination that leaves freezing, or some chemical or electrical conversion method, as the logical candidate. The labs are now looking at such chemical methods as the use of gas hydrates, and at controlled absorption using electricity. But freezing is the only method that has offered real promise up to now.

As for the alternatives to desalting as a means of stepping up water supply, all are limited in resources and expensive to install. There are clear limits to the possibilities of building huge dams and reservoirs, of pollution control, of the re-use of water in industry, and the reclaiming of sewage as a means of materially increasing the water supply. Add all their potential together and you will still run into a water deficit in the decades ahead.

That's where freezing has its chance to come in. Right now it seems to be the best bet, though the Office of Saline Water still hopes that an even better method will turn up before it has committed itself irretrievably. **END**

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Computers That Hear and Obey

● Getting them to understand human speech is a goal now being discussed by physicists.

● The key, researchers believe, is to learn the fundamentals of the resonances that distinguish vowel sounds.

● And sound-measuring may help reveal the mysterious "glue" that holds molecules together in a solid state.

Subjects ranging all the way from pipe organ tones to the complexities of underwater sound and the noise in space vehicles came under discussion last week as some 600 top physicists gathered together in Providence at the 69th meeting of the Acoustical Society of America.

The sweeping range of topics was no surprise to the pros, for in recent years acoustical research has cut across just about every scientific line, with repercussions all over industrial and community life.

Much of the research has a long way to go; much more basic work must be done before many of the existing projects can be completed. But when they are—and they are numbered by the score—whole industries may be revamped.

• **Computer Language**—Take the attempt to teach the IBM 704 computer to identify vowel sounds. This project is just one part of a continuing drive to make machines that can hear and obey spoken commands.

J. D. Foulkes of the Bell Telephone Laboratories says the effort to find the responsive machines is now centered on basic research in the field of resonance.

Human speech depends a great deal on the sounds that are classified as vowels—sounds such as the "ee" in heed and the "ah" in hard. Man's ear identifies these sounds correctly whether they are made by a child talking in a high squeak or by a sea captain bellowing in basso profundo. An "ee" noise is an "ee" noise and is different from an "ah" noise, regardless of pitch, intonation, or volume.

• **Vowel Qualities**—Trying to explain the difference to a computer is quite another matter. For the moment, researchers believe that it is resonance that enables the human ear to detect the difference. When you blow into a bottle, you hear its resonance frequency. Blow into two bottles at once, and you hear two resonances; their relationship gives the sound a distinguishable quality.

Musicians use labels such as "major" and "minor" to express these qualities. But something much more precise must

be found before science can make its machine that hears and understands. So the target for now is to classify the relationships between resonances in such a way that the computer will be able to distinguish vowel qualities.

Considerable progress has been made along this line recently, according to Foulkes. Researchers aren't yet ready to claim they have the complete answer. But they're making headway in the first step—that of describing, in simple mathematical language, the boundaries of the various vowel regions.

• **Solid State Physics**—Strides have been made lately, too, in the use of acoustical measurement techniques in solving a scientific mystery: what makes the molecules in a solid material stick together in a certain relationship.

Scientists have never been able to measure the cohesive force, or "glue," that holds molecules together in a solid state. A new theory now points to a relationship between ultrasonic absorption and molecular binding forces, though. If it proves to be true, this would provide the ideal yardstick for measuring molecular forces.

It is known that the "glue" in the case of some solids, such as the metals, is electrical in nature. In other solids, however, that have no electrical charge, the intermolecular forces are harder to understand. That's where ultrasonics comes in.

The theory as to what binds solids that have only weak molecular forces predicts also that these solids should have exceedingly high sound absorption. That's because molecules with weak binding forces vibrate more slowly, just as the weight on the end of a weak spring vibrates more slowly than one on a stiff spring. These slower vibrations can interact more efficiently with any sound wave that is transmitted into the crystal.

• **Crystal Sample**—In order to make precise measurements of the molecular forces binding solid materials by judging their ability to absorb sound, it is necessary first to have a fairly large sample of the material in the form of a single crystal. Some solids (such as diamond or quartz) can be found as a

single crystal, but most are made up of many small crystals.

Scientists are trying to grow single crystals of each solid, in turn, in the laboratory. That is what is slowing down progress at the moment.

If researchers can find out what the cohesive force in solid matter really is, it could radically change the whole materials industry. Manmade solids such as plastics and synthetic fibers would get a tremendous boost. And fields of science as far apart as electronics and biochemistry would be affected.

• **Hospitals, Restaurants**—Research progress in acoustics is not all at a basic level, of course. Much has been uncovered in recent months that should have an immediate bearing on the design and construction of many buildings, from hospitals to roadside restaurants. For the benefit of architects, for example, the U.S. Public Health Service has prepared a sound-rating schedule of all common hospital equipment and mechanical facilities.

In a series of experiments to assess the annoying problem of noise inside an airplane, Convair researchers have come up with discoveries that, translated into a blueprint for sound-proofing, should enable designers to lay out a plane in which the cabin noise level stays consistently low throughout flight.

And on the Illinois Tollway, designers have managed to build restaurants over the highway in which the traffic flowing beneath cannot be heard.

• **Navigational Aids**—Even the age-old idea of using sound signals for orientation at sea may finally be possible, thanks to new knowledge about the science of acoustics.

In a series of tests off the coast of Maine, researchers found measurable proof that the range at which an audible fog signal can be heard over water depends markedly on the direction of the wind. At specific distances upwind from the foghorn, the signal may be as much as 20-30 decibels weaker than at the same distance downwind. The scientific explanation: Wind near the ocean surface tends to bend the sound in the direction the wind is blowing.

To overcome this attenuation and maintain the audibility of a foghorn both upwind and downwind, it would be necessary to increase the sound power generated by the foghorn more than a hundredfold. This is far beyond the range of engineering practicality at the present time. But with the new knowledge, plus what's known about meteorological parameters, it should be possible to plan positioning of fog signals much more efficiently in the future. **END**

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● Business, self-interest, and the growth of knowledge all make advanced degrees the goal of more and more of the nation's bright young men.

● Under this pressure, universities keep pushing their standards still higher.

This is the time of the year when the graduating classes of 1960 are sweating out commencement exercises, when traditionally they are told that they're stepping out of the academic life to the harsh outside world. But this year it seems that a record number from those graduating classes will merely exchange one school for another. More and more of them are going on to graduate schools for another year, or two, or more.

Nobody can be sure just yet how large an increase there will be in the number of new graduates entering graduate schools this year. Not all the schools have yet enrolled the total number of students they can handle. Before the new academic year begins some of those already enrolled in graduate schools may change their minds and drop out. But it does seem certain that the number entering graduate schools in the new academic year will be well above the 350,000-odd who went after graduate degrees last year.

That's the main conclusion that can be drawn from a survey of more than a score of the major centers of higher education made this week by BUSINESS WEEK reporters.

I. Key to Success

The increase in graduate students has been steady at most universities for the last five years and more. But in the last couple of years the percentage of the graduating classes going on to more academic work has been growing faster. And at many universities this year the rate of increase as well as the sheer numbers will be greater than ever.

Prosperity is part of the reason for this: More and more new graduates can afford to go without a job while they earn a higher degree, because there are many more scholarships available, because their families can stake them, or because their wives can find jobs to help support them. This is a change from the old pattern of graduate school enrollment; only a decade ago it was

still assumed that graduate school enrollments increased when the job market was poor, when new graduates found they had to wait a year or more for the kind of job they wanted.

But there's more to it than that. The chief reason today is probably, as Wendell Horsley, placement director at Texas A&M College, says: "Entrance to industry requires a bachelor's degree, but the key to advancement is a graduate degree."

• **Lost Bachelors**—In the physical sciences this is especially true. As the body of learning grows rapidly, a science graduate is virtually lost without an advanced degree. And now, says Florence Watt, placement director at the University of Southern California: "Advanced degrees are required for jobs in libraries, in education, and in government work."

Is the B.A. now contemptibly common? It's hard to find a professor or a placement officer who'll give an unconditional "Yes" to that. But in Lansing, Mich., John R. Kinney, Michigan State University's placement director, says: "More and more a bachelor's degree is not worth too much to a job-hunting graduate. If he wants a good job, he finds that a masters degree is almost expected of him."

II. Growing Fields

It's not too unexpected that the physical sciences should be contributing to some of the sharpest increases in graduate school enrollments. Massachusetts Institute of Technology, one of the chief breeding grounds for advanced degree candidates in the sciences, expects some 50% of its graduating class will go on to graduate schools—and that will represent a 15% increase over last year. MIT's placement director says that faculty members are doing their best now to persuade their brightest students to go on to graduate schools for advanced degrees and that the graduate schools themselves actively woo


the bright ones with almost as much fervor as industrial companies seeking graduates for their payrolls. The schools have a steadily increasing number of research grants available and if they're to keep up the quality of their research they, too, must try to attract the brightest graduates.

Enrollments in graduate schools of business have been climbing sharply this year and they, too, add a big share to the over-all increase. More and more frequently engineering graduates are enrolling in these schools, a trend that began to show up four or five years ago. Engineering graduates, says a placement official at Philadelphia's Drexel Institute of Technology, have found that "you can't be an engineer and lead a monastic life with your slide rule; you have to operate in the reality of a business enterprise." The result that an engineering-plus-business-school graduate seeks is not simply more money in his first job, but a job that has greater potential, that will put him several grades higher in corporate hierarchy right from the start.

• **One Dip**—Among the few schools that are failing to get a higher proportion of new graduates are the medical schools. These have been operating near capacity for several years and their expansion has been slow. But beyond that, some college placement officers sense a growing disinclination among many potential medical school students to tackle the long route to an M.D. degree only to face two or three or more years of privation as interns and residents. There's a growing emphasis on medical laboratory research rather than bedside practice, and the holder of a doctorate in some of the physical sciences can qualify for this without going through those years of privation during which most new doctors pile up a lot of debts.

Law schools, though, are as crowded as ever; there's no decline in the popularity of this profession. Yet less than 10% of the law school students who pass their bar examinations actually go into legal practice. In fact, most of them wind up with the same goals as the winners of advanced degrees in business administration.

• **Solid Increases**—Almost everywhere, the graduate schools will be crowded to capacity. In the graduate schools of Detroit's Wayne State University, the estimate is that there will be a 15% to 20% jump in enrollments this year over last year. The University of Houston expects a 20% increase in its graduate schools' enrollments. The University of



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Michigan expects to get some 4,500 applications for its graduate schools this summer—and estimates it will accept about 1,800 of them.

Not all those attending graduate schools when the new academic year begins this fall will be strictly students. Many will be working at full-time jobs, and, following a trend that has developed since soon after World War II, will have their higher education financed at least in part by their employers. Many of this year's new entrants will probably follow this same pattern during the next few years, working a year or two toward an advanced degree then taking a job and completing their work with aid from their employers.

III. Higher Standards

With the pressure on space and on faculties, graduate school administrations are doing some careful weeding out. The performance of those already admitted is being watched closely at many schools to get rid of "intellectual hobbyists" and those "who are afraid to test their wings and just want to stay in school."

Standards are being raised constantly for new applicants. In graduate schools of physics and chemistry the standards are climbing rapidly under pressure from the fast increasing number of applicants. Says the dean of the University of Chicago's physical sciences department: "Our graduate level students must be dedicated to science and basic research, rather than to higher salaries."

• **Cheap MBAs?**—By constantly watching such standards, most university officials believe there will be no cheapening, through sheer numbers, of the advanced degrees as there has been of the B.A. degree. But a few fear that some degrees may lose their stature. Temple University's placement director, Sylvester Aichele, says that many universities are planning new or expanded graduate schools of business and that "they are probably enticing too many people into the Master of Business Administration program, people who aren't really qualified." And an official of one Midwestern university says: "The cheapening has started already in some of the sciences. In these, a Masters degree is often looked on as a consolation prize for those who cannot obtain a doctorate. . . . A tendency to grind out these advanced degrees will necessarily lower standards."

Nobody, though, fears yet for the value of a doctorate. Says Harlan Hatcher, president of the University of Michigan, "If the Bachelors degree is as common today as the high school diploma was a generation ago, the doctorate is still a vast investment in time, money, and effort."

No More Humanities for Brass

The Bell System and the University of Pennsylvania have terminated their rigorous joint study course for management—although all hands swear the program was a success.

One of the nation's most publicized management training courses died quietly this week after running for seven years. The casualty was the University of Pennsylvania's Institute of Humanistic Studies for Executives, started and backed by the Bell Telephone System companies.

The reasons for the institute's death are beclouded by the insistence of everyone connected with it that it was a success. Every year, Bell sent two dozen bright young district and department managers—with their families—to the Penn campus for 10 months of intensive study of art, music, literature, and philosophy. This program, says Bell, accomplished something worthwhile for the company.

• **Broader Horizon**—According to Wilfred D. Gillen, president of Bell Telephone Co. of Pennsylvania, which looked after the program for the Bell System, the point of it all was to assure the telephone companies a supply of "men with breadth and depth, with a broad knowledge of the world in which business exists and operates, and with an understanding of people and their motivations."

To show that the institute did this job, Bell points with pride to early members of the program now coming into prominent executive positions in the various operating companies. It is impossible really to prove that the Penn course is the reason for their success, since the likeliest comers were sent. But the companies give the institute's program credit for a major assist.

• **Cutting Down**—In spite of this endorsement, Pennsylvania Bell officials notified the school last fall that the company was running out of candidates for the institute, although only about 130 executives out of the entire Bell System had been through the course. Other Bell officials don't mention any lack of students; they say that all management training is to some degree experimental and the institute's demise means only the end of an experiment, not its failure.

In any case, Bell cut its enrollment in the institute to nine this year and asked the university to run the program on a tuition basis, open to executives from other companies. Only one "outsider," from the classified telephone directory department of the Reuben H. Donnelley Corp., showed up and paid the \$4,000 tuition fee. Bell and Penn agreed that in order to continue next

year, they would have to drum up more students to fill the class.

• **Traveling Salesmen**—So the institute officials took to the road with a group of top university officers led by Alfred H. Williams, chairman of the university's board and former head of the Philadelphia Federal Reserve Bank. They held long meetings with corporate brass in Chicago, Pittsburgh, and New York, as well as Philadelphia, trying to sell them on the idea of sending some of their promising middle managers to the institute. But they found no takers.

As one university spokesman explains it: "There was great interest in the project, but company after company decided this year wasn't the year. They were going through reorganization or some such thing." Finally, this spring, it became evident that even if Bell sent nine or ten executives, the institute just couldn't round up a full-sized class of 24. So it was decided to disband.

The end of the institute, however, does not yet mean that Bell is abandoning the whole idea of humanities study for executives. Since the institute was started in 1953, the Bell System has created four other shorter programs. Since 1956, there has been one eight-week session a year each at Williams and Dartmouth colleges, and, since 1957, three eight-week sessions a year have been held at Northwestern University. A series of 14-week courses that began at Swarthmore College in 1956 was abandoned in 1958.

Ordinarily, the schools at first run the courses exclusively for Bell on a contract basis. But Bell likes them to take the programs over eventually and recruit students from other companies, too. This was done last year at Williams and Dartmouth, but so far these programs have attracted only a few outsiders. The reason for dropping the Swarthmore course was that the school felt it didn't have the manpower to sell the humanities program to other companies.

• **No Cinch**—One reason the Institute of Humanistic Studies for Executives was so difficult to sell to other companies was that it was no quick "introduction to the arts" and no course of "practical" management skills with a garnish of humanities. It was a long, serious, intensive program of lectures, readings, and discussions of esoteric subjects.

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... "I guess it was ahead of its time, but we sure got a lot out of it" . . .

(STORY on page 123)

carpeted, gold-draped, air-conditioned quarters, but the courses were tough. They covered such subjects as "the history and esthetics of music," "the philosophy of ethics," and "practical logic." The executives read Freud and Huxley and Dante and Cervantes, Flaubert and Dostoyevsky and Camus and T. S. Eliot. They attended chamber music concerts and poetry readings by John Ciardi and Richard Wilbur. They heard guest lectures by anthropologist Carleton Coon, designer Oliver Larkin, critic Gilbert Seldes, columnist Max Lerner, and economist Gardiner Means. And they dissected James Joyce's *Ulysses*, chapter by chapter.

The students each had a term project, too—one wrote a paper on 19th Century American fiction; another took painting lessons so he could better appreciate the art.

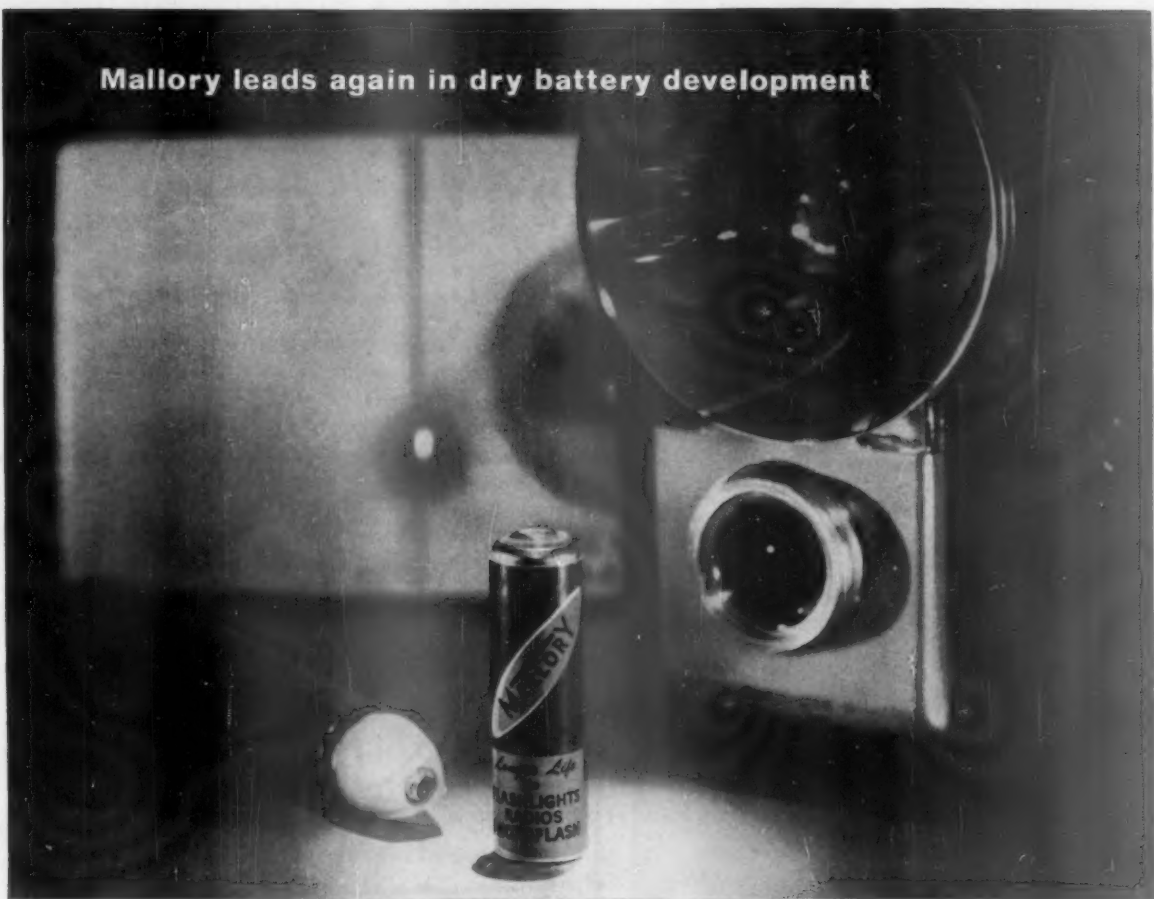
• **Impact on Life**—Most of the students worked hard. But all thought the work was worth it—that the 10 months at Penn had brought about an important change in their lives.

Some former students report that they are buying fine art for their homes now, and are beginning to stock up on books and classical records. They say that the courses made them more aware of changes in the world around them, and helped them relate those changes to other times and to other societies.

Students from the earlier years at the institute testify that the wider outlook they learned stays with them. Mostly it results in the kind of change reported by one ex-student at the institute. "I find myself today taking a much broader view and making more critical analyses of both on- and off-the-job problems," he wrote back to a teacher at Penn. "Decisions do not come as spontaneously, and more of the opposite viewpoint automatically registers."

• **Mourners**—This kind of enthusiasm for the newly abandoned institute has made Bell itself "very unhappy about the whole thing," according to John Markle, Pennsylvania Bell's personnel vice-president. The gloom was thick at this week's cocktail party and dinner that served as a graduation convocation for this year's executive-students and a final general meeting of the institute faculty and the Bell brass. Everyone mourned the conclusion of what they considered a successful experiment. "I guess it was ahead of its time," Markle philosophized, "but we sure got a lot out of it." **END**

Mallory leads again in dry battery development



One Battery Does Three Jobs

Own a portable radio? A flashlight? A flash camera? Up to now, you had to buy a *different* battery for each. The reason: radios draw small currents for long times, flashlights take moderate current continuously, flash guns take a lot of current in bursts. So battery makers produce tailor-made batteries for each.

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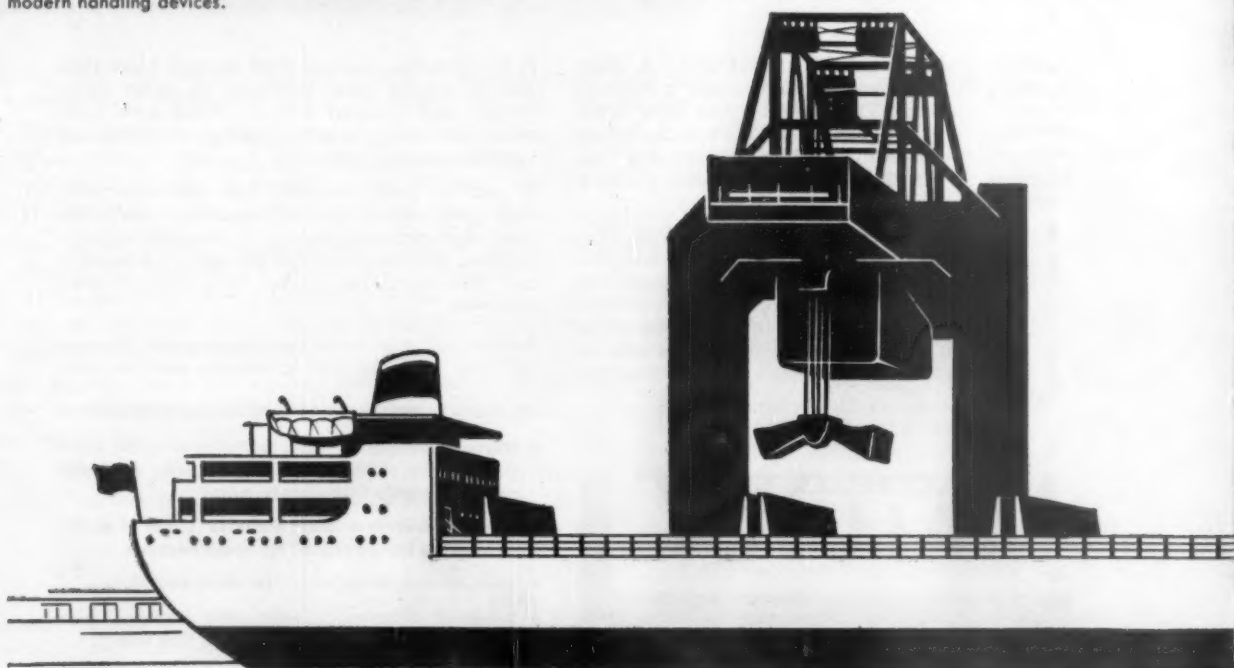
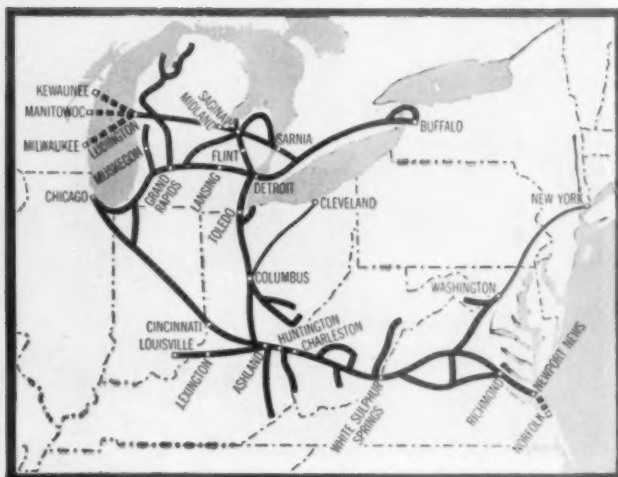
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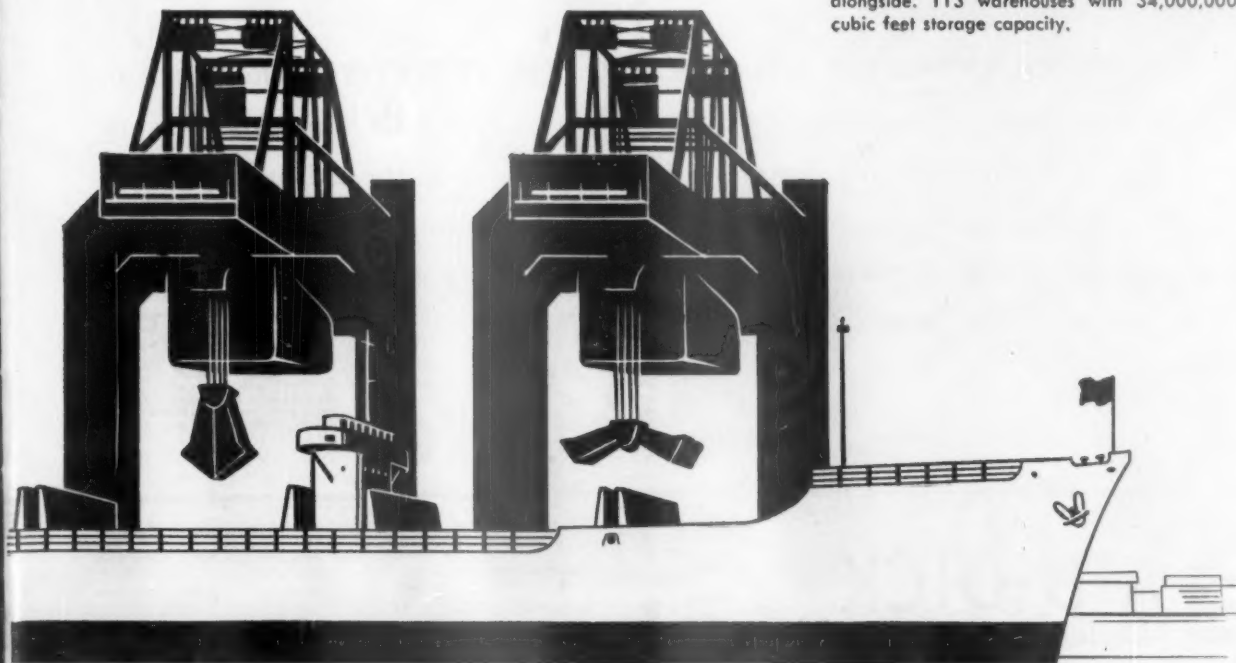
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FINANCE

Manager of the National Debt

That's the \$289-billion responsibility of Julian B. Baird, a retired banker. He has done a bold and unorthodox job.

Julian Braden Baird, a 68-year-old retired banker from St. Paul, Minn. (picture), has one of the most thankless jobs in government. He is Under Secretary of Treasury for Monetary Affairs, which means he has responsibility for managing the nation's \$289-billion debt—more than \$50-billion of which comes due before the Eisenhower Administration leaves office next January.

Baird went to Washington just 33 months ago. He took the job only after it had been turned down by more prominent bankers, some of whom plainly ducked the assignment because of the way it had damaged the reputations of previous debt managers. Baird was regarded as a typical Midwestern banker who would follow a rigid, conservative line.

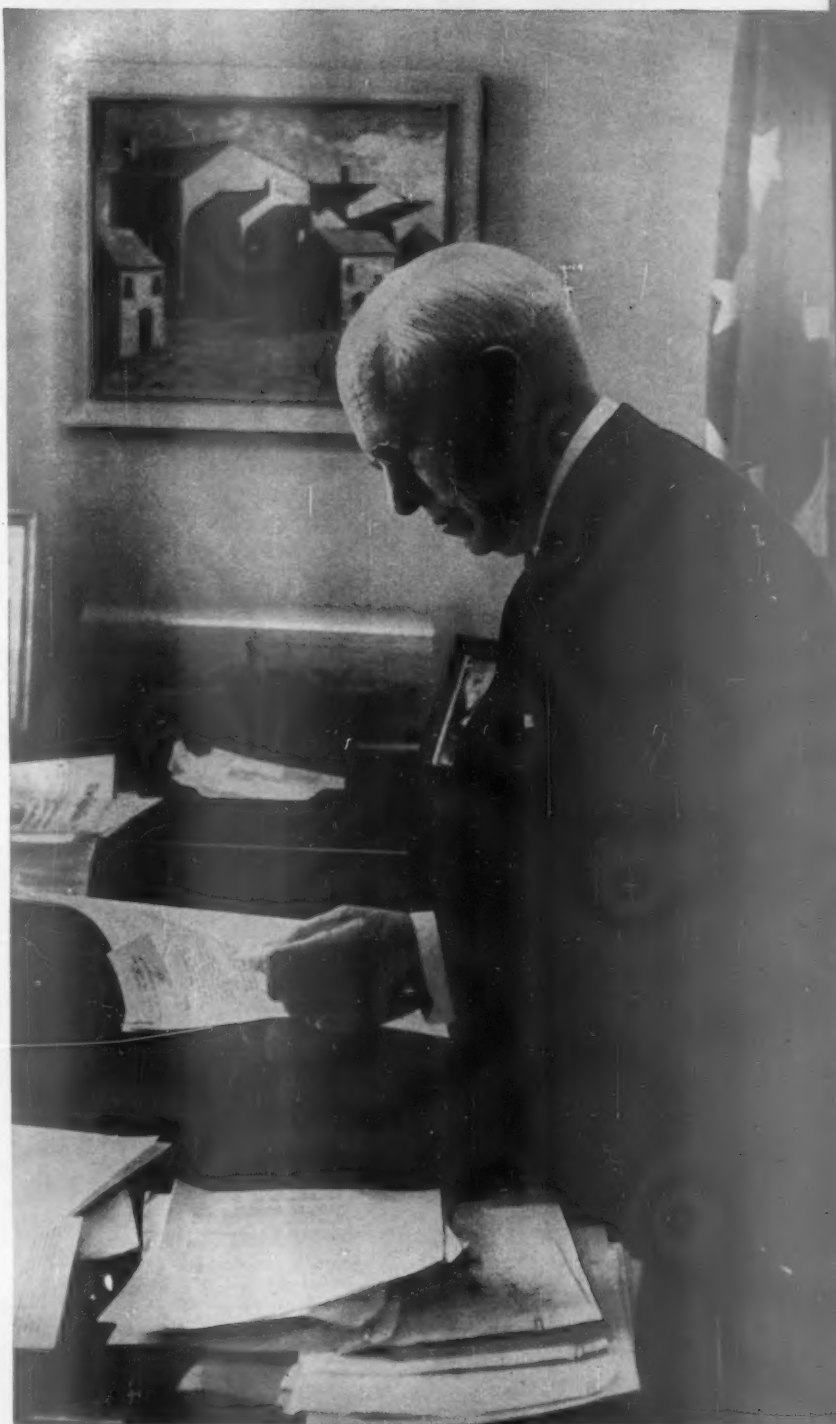
Certainly, he looks the part. He has thinning silvery hair and an addiction to blue serge suits. Baird's manner is stiff, his speech spare and crisp, sprinkled with mild slang dating from the 1930s. He looks as if he has had a lot of practice turning down loans and calling in mortgages.

• **Surprise**—But almost from the moment he arrived, Baird has confounded everyone with his bold and unorthodox management. With full backing from Treasury Secy. Robert B. Anderson, he has come up with innovations that have kept both his staff and the investment community—to which he has to sell close to \$80-billion in securities every year—on their toes:

Advanced refundings, in which maturing Treasury issues are rolled over well before their due dates. The first such refunding was completed this week when holders of 2½% bonds due in November, 1961, had Baird's offer to swap them for new 3½% four-year notes or eight-year 3¾% bonds.

Selling cycles of six-month and one-year Treasury bills. Previously, only three-month bills had been sold. The maneuver puts more of the debt on an auction basis, where the market, not the Treasury, sets the interest rate.

Concentrating the refunding of coupon-bearing issues into a quarterly pattern. This policy was begun by Baird's predecessor, W. Randolph Burgess, who became notably unpopular in Wall Street before departing to be ambassador to NATO. Baird accelerated the pro-



IN OFFICE since 1957 as Under Secretary for Monetary Affairs, Baird has pioneered advance refundings, six-month and one-year Treasury bills, and other new financing ideas.

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gram, which minimizes the Treasury's disturbance of the market.

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• **Friends and Enemies**—In the process of innovating, Baird has inevitably made some enemies. Critics charge that his techniques have raised the cost of servicing the debt; that some of the methods have been pulled "out of the blue and have interfered with other things he wanted to do"; and that, particularly in recent months, the rapid-fire succession of his financing operations shows "he doesn't understand the market mechanism."

I. Innovator in Perspective

Baird doesn't see himself as an innovator by nature but as a man caught in a situation where novel ideas had to be tried if the debt were to be managed at all rationally. Basically, he remains a conservative.

The job of debt manager is never an easy one. On the contrary, it is one of the most sensitive spots in Washington. As the nation's biggest borrower, the Treasury has a major influence on the money markets—and on over-all economic activity. Its decisions can be made to offset what the Federal Reserve Board is doing—or to move in the same direction.

• **The Red and the Black**—Baird's woes have magnified because while he has been in office, the government has swung from a massive deficit to a modest surplus, the money managers from extreme ease to aggressive tightness. For the past year, he has suffered another handicap: the $4\frac{1}{2}\%$ interest rate ceiling on offerings of new Treasury bonds of more than five years' maturity, because outstanding long-term bonds have sold above the ceiling.

Given these circumstances, Baird has done well. He was able to dodge the deficit's threat of inflation. He has prevented a buildup in the proportion of Treasury debt held by commercial banks, which could be inflationary. At every opportunity, he has fought to stretch out the average maturity of the debt and to put it into the hands of permanent, savings-minded investors.

• **Holding His Own**—It has not been clear sailing. For example, Baird has barely held his own in controlling the age of the debt. When he first took office, the average maturity was 55 months; by June, 1958, he had pushed it out to 63 months; but by April, 1959, it was back to 56 months. Now, largely because high interest rates have closed

off the long-term market, the average maturity is only 52 months.

Baird's critics also cite the June, 1958, debacle in the Treasury market, when prices tailed and gave a fearful beating to speculators who had been lured by the possibility of buying on small margins or none at all. Baird thinks the speculators have only themselves to blame, but he is intent on drawing up safeguards to prevent a recurrence of the collapse.

On the whole, Baird has scored both successes and failures. Some of his experiments are sure to be retained; others may well be dropped. But Wall Street's judgment, on balance, is that his showing against formidable odds has been unexpectedly impressive.

II. Newest Innovation

Wall Street is reserving judgment, though, on Baird's latest experiment: his use of advance refunding. It has been tried—and found wanting—in Canada, but Baird views it as a major tool for future debt managers. A failure now would be a hard blow. However, it's by no means certain that the present offering will succeed.

For one thing, the fine points of the offer confused Wall Street, tax lawyers, and Treasury officials themselves. Making the exchange didn't seem to promise much advantage in interest yield. As a result, a flop seemed in the offing.

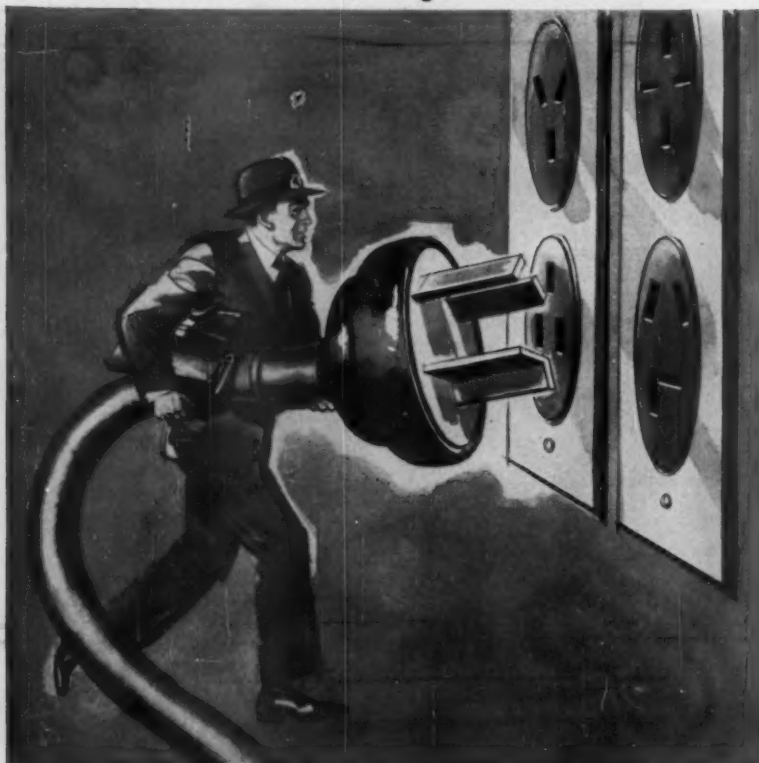
Then, last week, market psychology improved, and orders for the new securities picked up. "We think that the market is beginning to adjust to the idea of exchanging the $2\frac{1}{2}\%$ 17 months before they mature," says one Treasury official. "But if Julian takes a knock on this, he'll be back for another try."

• **First in Free Market**—There has been one other advance refunding—in 1951, of a non-marketable issue in connection with the celebrated Federal Reserve-Treasury accord, which restored a free market to government bonds. But Baird's is the first advance refunding under free market conditions. Actually, he planned to use the device earlier this year but held back when government bond dealers seemed unresponsive.

• **Under the Ceiling**—However dear the offering is to Baird's heart, it isn't the long-range refunding he has been advocating. If Congress had lifted the $4\frac{1}{2}\%$ ceiling, as the Administration has been requesting for a year, Baird would have designed a refunding to push some debt out into new 20- and 30-year issues. This one has to be relatively short-term to fit under the $4\frac{1}{2}\%$ ceiling. It was offered with a special purpose: to make it easier for the next Administration's debt manager to handle the refunding of the $2\frac{1}{2}\%$, of which \$11.2-billion are outstanding.

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securities this time will be that much less of a problem next year. "If it's only \$1-billion, it will help," Baird tells his aides.

III. Intellectual Wrestler

The advance refunding has been a typical Baird operation. It is something new, designed for a special problem, with no fixed idea in advance of how the market will react.

Though Baird disavows any natural bent as an innovator, his staff insists that he is one. "Julian loves an intellectual wrestling match," one associate says. This aide, a long-time career man in the department, rates Baird at the top for willingness to adopt new ideas and for skill in pulling ideas out of conferences. Another aide describes his boss as "bold and inventive."

"Look at the way he has slammed into the three-to-five-year section of the market," a Treasury pro says, referring to Baird's financing last fall that culminated in the famous "magic" 5% notes sold to mature in less than five years. "A less courageous man would have turned to 90-day bills, blaming Congress for the consequences."

• **Talking It Out**—Baird sees himself as a team man, and his aides admire him for the way he'll take the whole team to Secy. Anderson for a showdown on some disputed point. If Baird can't convince the staff on an important issue, he insists that their side gets a hearing before Anderson, too. "He's lost a couple of times," a staffer recalls.

• **East Instead of West**—In Midwestern banking circles, Baird was considered careful but not particularly inventive. He specialized in portfolio management, with emphasis on governments. Except for a stint with the then National City Bank of New York in 1915-17, Baird spent his business life in his hometown of St. Paul. Employed by an affiliate of the First National Bank of St. Paul 40 years ago, he became bank president in 1945, chairman of the board in 1954.

In 1957, ready for retirement and ticketed for a cruise to the Orient with Mrs. Baird, he got a call from Burgess. Burgess was anxious to leave for Paris and his new assignment with NATO, and he needed a successor.

Until he accepted, Baird had never held a government job. But he had years of experience on Federal Reserve and Treasury advisory groups.

IV. Some Hits, Some Misses

In the Treasury, Baird works closely with Robert P. Mayo, a department career man. Mayo was chief of the debt analysis staff from 1953 to 1958; last year, Baird promoted him to Assistant to the Secretary. Under both



NO PLACE FOR HONEST SWEAT

Welcome to the curious world of electronics, where men work in glass houses on instruments so sensitive that merely the sweat from their fingers could prove harmful.

At least, that's how it is at Varian Associates. The instrument is a klystron microwave tube, about to be brazed in a hydrogen atmosphere inside that glass housing. This is the magical tube invented by Sigurd and Russell Varian in 1938 — the tube that paved the way to wartime radar and that postwar corporate phenomenon, Varian Associates.

Where once there was but one klystron tube, there now

are 132 different types. Scarcely a missile is without a Varian klystron and the firm continues to pioneer other developments equally vital to the nation's protection.

And who protects Varian? An insurance pioneer named INA. Founded in 1792... but with views as new as the space age, and insurance programs to match.

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REYNOLDS

in Kwakwani...



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Reynolds Wrap

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INTERNATIONAL, INC., AND THEIR U. K. AFFILIATES
THE BRITISH ALUMINIUM CO. LTD.,
AND REYNOLDS T. I. ALUMINIUM LTD. OPERATE:

Bauxite or Fluorspar Mines in British
Guiana, France, Ghana, Haiti,
Jamaica, Mexico, and the
United States


Alumina Plants in the United
Kingdom, and the United States

Reduction Plants in Canada, Norway,
the United Kingdom, and the
United States

Fabricating Plants in Australia, Canada,
Colombia, Cuba, West Germany, India,
Mexico, Philippines, the United
Kingdom, the United States,
and Venezuela

Sales Offices and Sales Agents
throughout the world

Watch Reynolds TV Shows:
"Bourbon Street Beat",
"Adventures in Paradise"; and
"All Star Golf" (resuming in
October)—ABC-TV



Kwakwani is in British Guiana. So is Reynolds Aluminum, mining aluminum's basic ore, bauxite. The bauxite and fluorspar mining operations of Reynolds and its affiliates are also in France, Ghana, Haiti, Jamaica (shown above), Mexico, and the United States. Most of Reynolds ore is transported in Reynolds own fleet of specially designed ore freighters.

ALUMINUMS*

in Kinlochleven...in Kentucky



Kinlochleven is in Scotland. So is Reynolds Aluminum, with "reduction" plants of Reynolds British affiliate producing virgin aluminum at Kinlochleven and Lochaber (above). Reynolds and its affiliates operate similar reduction plants throughout the United Kingdom, in Canada, in Norway, and in the United States.



Kentucky is important in aluminum fabrication. Above, one of Reynolds Louisville plants makes "tubed sheet" refrigerator evaporators by an ingenious and economical technique pioneered by Reynolds. Fabricating plants of Reynolds and affiliates are located in Asia, Australia, Europe, and North and South America.

WHY REYNOLDS ALUMINUM?

In every part of the free world you'll find Reynolds Aluminum and Reynolds affiliates... mining here, producing there, fabricating and distributing... pioneering for progress with today's most versatile metal: Aluminum.

One of the big advantages of this world-wide organization is the availability of aluminum know-how for Reynolds customers all around the globe.

Example: Ideas on the production and application of aluminum foil for a Brooklyn mirror manufacturer were easily adapted for his subsidiary in England by a Reynolds affiliate there.

Example: U.S. refrigerator manufacturers were able to duplicate their American designed evaporator units in Mexico with aluminum tubed sheet components made by Reynolds Mexican subsidiary.

Example: An international soap company wanted to standardize its package, using the same foil wrapper overseas that Reynolds helped develop in this country. Thanks to its international set-up, Reynolds techniques and production facilities were available just where the manufacturer wanted his soap wrapped.

You'll find that wherever in the world aluminum can do a job—in packaging, in building products, in household uses, or in industrial applications, Reynolds Aluminums and Reynolds technical services are close by.

For details on the services and products available to help you improve your products or production, either domestic or foreign, contact your local Reynolds branch office, or write direct to *Reynolds Metals Company, Richmond 18, Virginia.*



Reynolds Aluminum: the singular metal that is very plural indeed



*Take a close look at **Escon**...promising new plastic from Enjay!*

Versatile Escon polypropylene opens many new product applications not practicable with other plastics. For example, Escon allows accurate reproduction of fine and intricate designs; has high surface lustre, making it an ideal material for grilles, knobs and housings of many household items. As a material for replaceable bottle caps,

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ENJAY CHEMICAL COMPANY

A DIVISION OF HUMBLE OIL & REFINING COMPANY



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ADDITIVES. Enjay supplies a complete line of "prescription-balanced" additives to improve lubricants and fuels for today's cars. Examples: viscosity index improvers, detergent inhibitors and pour point depressants that help control motor oil flow under hot and cold conditions — and provide a new high in engine cleanliness and efficiency. New gasoline additives that reduce lead and carbon deposits, prevent stalling from carburetor icing and stop rusting in fuel tanks.

BUTYL RUBBER. Butyl can be compounded into a wide variety of products for automotive and industrial applications. These include super-traction auto tires, inner tubes, coated fabrics, electrical insulation and hundreds of other products where resistance to heat, ozone, weathering, tear, flexing and abrasion is necessary.

PETROCHEMICALS. Enjay, a pioneer and leader in the petrochemical field, serves industry with chemical raw materials for detergents, cosmetics, synthetic fabrics, plasticizers, inks, rubbing alcohols, anti-foaming agents, insecticides, herbicides and surface coatings, including the new Buton® Resins for primers in better surface coatings.

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ENJAY CHEMICAL COMPANY
A DIVISION OF HUMBLE OIL & REFINING COMPANY

Democrats and Republicans, this job had traditionally gone to men with wide experience in private finance.

Another close associate is Charles E. Walker, an economist from the Dallas Fed, who was named an Assistant to the Secretary last year.

• **Score Sheet**—This is the group that, under Baird, has produced one novelty after another.

For example, there's the cycle of six-month bills started in December, 1958. At first, skeptics said loudly that corporations, avid buyers of the three-month bills, would never tie their money up in six-month paper. During a period of adjustment, the Treasury had to pay around $\frac{1}{4}\%$ more for the six-month bills than for their 90-day counterparts. But then demand steadied, and the spread narrowed. Both the Treasury and the market now rate the six-month issues as a success.

On the other hand, the one-year cycle of bills added in January, 1959, has proved expensive compared to shorter paper, and the Treasury isn't convinced that it's worth keeping. But it served to raise \$8-billion to finance the recession-caused deficit.

• **Savings Rates**—Baird also tackled the problem of applying last year's increase in savings bond interest rates to the future earnings of all outstanding savings bonds—not merely those issued since the increase. The \$48-billion worth of savings bonds outstanding make up 16% of the total debt, but last year redemptions amounted to \$3-billion, partly because the interest rates weren't appealing. With the help of Baird's efforts to make all outstanding savings bonds pay the same rate, the trend is gradually beginning to swing back up.

One of this year's experiments, though, has been deemed as a flop: Baird's offering of a $4\frac{1}{4}\%$ 25-year bond, callable in 15 years. The call feature, not used in a Treasury security for many years, had been suggested by Democratic critics. Baird and Anderson hoped that with the interest rate right at the $4\frac{1}{4}\%$ ceiling, they might have success in pushing debt into the long-term area.

The offering brought in \$370-million—\$70-million more than needed at the time but far short of the \$500-million to \$600-million the Treasury had hoped for.

• **For Safety's Sake**—Baird is still developing policies to discourage too much speculation in governments. After the 1958 price collapse, the Fed and the Treasury teamed up to make an exhaustive study. They suggested that borrowers at national banks put up \$5 for every \$100 advanced on Treasury securities—in effect, a 5% margin. Previously, no margin at all had been required. Another proposal was to require

more information on the holdings of dealers. The New York Fed plans to publish this data regularly in the future.

Baird has run into heavy opposition from government bond dealers on his idea that so-called "pre-emptive rights" should be denied to holders of maturing Treasury issues. In the past, such rights have entitled the holders to swap old bonds for new, and a speculative buildup in rights trading contributed to the 1958 fiasco. Baird has proposed that the Treasury might pay off the old bonds in cash and simultaneously sell a new issue to raise the money.

Dealers have attacked the suggestion on the ground that it would be difficult to administer, especially if there were any lag between payment of the cash and the reinvestment. Baird reportedly has some second thoughts about the idea, although officially he remains committed to it. Some bankers think the threat of withdrawing rights is enough to prevent runaway speculation. In any event, the Treasury has so far made no move to implement the idea, in spite of one false start.

V. Still a Traditionalist

Baird is unusual in his willingness to work with economists as well as bankers and businessmen. Professional economists have come to respect his ability not only to absorb their thinking but also to generate ideas of his own. Some of these ideas, in fact, are regarded as "progressive," and he has a restless mind that is always ready for a new problem. For example, he has become increasingly concerned about the need to tailor domestic policy to its possible international consequences—something largely ignored by his predecessors.

One overriding theme runs through most of his thinking: how to keep the mere passage of time from shortening the average length of the public debt. This is always a concern to a debt manager who, like Baird, is imbued with classical monetary theory. But when the statutes forbid issuing long-term bonds at existing market rates, the problem is one to haunt his sleep.

• **Impending Debate**—Baird's greatest disappointment has been the refusal of Congress to lift the $4\frac{1}{4}\%$ ceiling. Had it done so, he could have given advance refunding the long-term test he thinks it deserves.

As he sees the future, every Administration, Republican or Democratic, will have to pay more than $4\frac{1}{4}\%$ on occasion—or else manage the economy to hold down interest rates. As an article of faith, he believes in flexible interest to keep the economy on an even course, and he greatly fears the inflationary effect of pegging bond prices or any other device suggested to put a lid on rates. **END**

In Finance

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Banks Say Loan Rates Won't Drop— But a Reduction Is Bound to Come

Although the Federal Reserve has definitely moved away from its restrictive credit policy toward one of greater ease, bankers this week were still insisting that their own lending rates, which are scaled upward from the 5% charged to prime corporate risks, will remain at their present levels. But a reduction is only a question of time.

Bankers point out that their loan-deposit ratios are extremely high and claim that loan demand is strong enough to keep them from lowering their rates. But borrowers can get funds in both the short-term commercial paper market and the long-term capital market below the rates charged by the banks. Moreover, loan demand prior to the June tax date has not been up to expectations.

This indicates that the banks may lower their rates in the near future. Their deposits are likely to increase now that open market rates have declined so sharply. And with the Fed willing to supply more reserves and with borrowers somewhat less in evidence, the banks may feel impelled to encourage new borrowings by a lowering of the prime rate.

• • •

Bank Profits Seen Unaffected By Fed's Shift to Easier Money

The Fed's shift to easier credit won't harm bank profits this year. That's the belief of Leif Olsen, vice-president of M. A. Schapiro & Co., bank stock dealers. Olsen, writing in the current issue of the firm's *Bank Stock Quarterly*, says that despite the reversal of Fed policy, net operating earnings of 25 of the largest banks will be 16% ahead of 1959.

According to Olsen, only a sharp drop in money rates could cause a dramatic shift in the present earnings trend. For instance, the prime rate would have to be trimmed to less than 4½% before the present yield realized on total loans would stop rising.

The study also points out that the percentage of earnings that would be paid out under current dividend rates is the lowest in 10 years. Olsen looks for "favorable dividend" action to match the growth in earnings.

• • •

Shakeup in Management at Dresser Follows First-Half Earnings Decline

H. N. Mallon, chairman of Dresser Industries, Inc., has personally taken in tow a reshuffling of Dresser management and business in the wake of a sharp drop in earnings for the first six months of 1960. Earnings dropped from \$4.7-million in the first half of 1959 to

\$3.8-million in 1960's first half. Mallon, guiding hand of Dresser since 1929, has assumed all operational responsibilities of the company and will continue to direct matters of basic policy.

Pres. John B. O'Connor retains his title but will devote most of his time to "domestic and foreign sales and new product development." F. C. Fabian, Jr., former head of operations of Dresser's manufacturing division, has been made executive vice-president and will outrank the presidents of Dresser's 13 companies and divisions.

Dallas circles hear that Dresser's product mix also may be in for some changes. One of its most recent purchases, Southwestern Industrial Electronics in Houston, is having its troubles, and the trade says it has turned out to be a "white elephant."

What may happen is that Mallon will streamline Dresser, with several of the companies combined in a new division. Mallon probably will try to achieve this fairly soon; he reached retirement age early this year and may want to turn over the company reins when the reorganization is complete.

• • •

Miami Beach Hotelmen Are Optimistic Despite Troubles of Some Operators

Miami Beach hotelmen this week reported prospects for a banner summer season, but surface appearances are misleading.

Six hotels already are involved in court proceedings, including foreclosure suits, bankruptcies, or corporate reorganization. They include the Nautilus, Saxony, Sorrento, Empress, Delmonico, and Cadillac. A court-appointed trustee shuttered—at least for the summer—the Lucerne. And attorneys reportedly are ready to file papers closing five more hotels.

On the other hand, the big 1,000-room Fontainebleau, enjoying its lushest year, should gross \$15-million in 1960, up \$6-million from last year. Some of the other big hotels, which stress convention business, also show big increases.

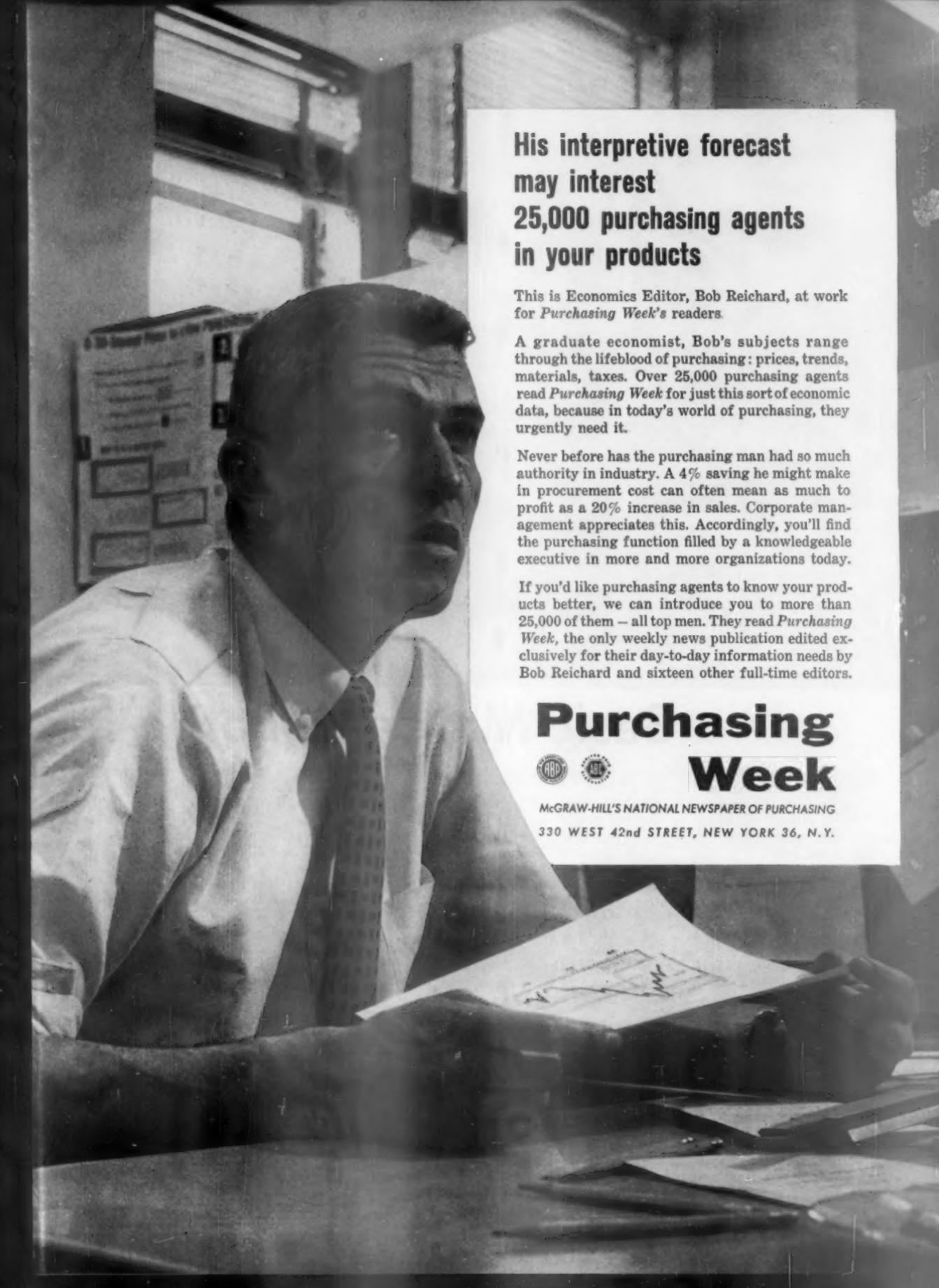
Hotelmen believe that the worst is almost over for Miami Beach. They agree that there's enough capacity for a while, that the handful of operators who speculated and bought hotels at inflated prices will be squeezed out. But the big hotels, which have solid first mortgages, should be able to ride out the storm.

• • •

Finance Briefs

Textron, Inc., this week bought its way into the pleasure boat field. It acquired the assets and business of the Dorsett Plastic Corp. for 115,000 Textron shares, worth at current market prices some \$2.6-million. Dorsett had sales in its last fiscal year of about \$2.8-million, expects almost double that in the year ending this August.

Publisher Samuel I. Newhouse keeps expanding in the communications field. His latest purchase: a 15% interest in the Denver Post, the dominant newspaper between Kansas City and the West Coast. The paper's present majority stockholders say Newhouse's presence won't change the paper's traditionally "independent" policy.



**His interpretive forecast
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This is Economics Editor, Bob Reichard, at work for *Purchasing Week's* readers.

A graduate economist, Bob's subjects range through the lifeblood of purchasing: prices, trends, materials, taxes. Over 25,000 purchasing agents read *Purchasing Week* for just this sort of economic data, because in today's world of purchasing, they urgently need it.

Never before has the purchasing man had so much authority in industry. A 4% saving he might make in procurement cost can often mean as much to profit as a 20% increase in sales. Corporate management appreciates this. Accordingly, you'll find the purchasing function filled by a knowledgeable executive in more and more organizations today.

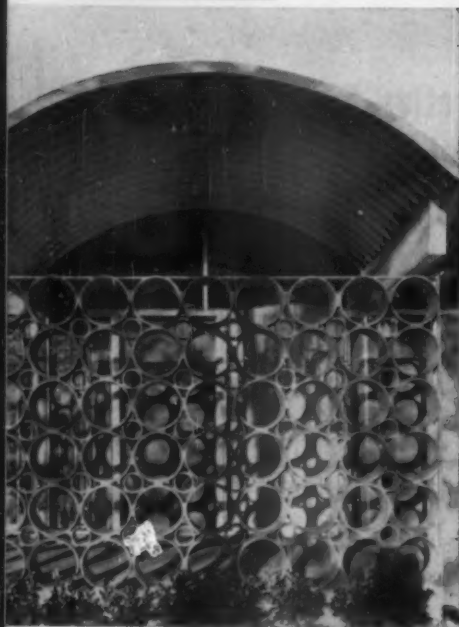
If you'd like purchasing agents to know your products better, we can introduce you to more than 25,000 of them — all top men. They read *Purchasing Week*, the only weekly news publication edited exclusively for their day-to-day information needs by Bob Reichard and sixteen other full-time editors.

Purchasing Week



McGraw-Hill's NATIONAL NEWSPAPER OF PURCHASING

330 WEST 42nd STREET, NEW YORK 36, N.Y.



Asbestos cement house, first in research program of Living and basic materials industries, has had over half-a-million visitors since it opened in January in Oklahoma City. Glass, wood, aluminum, portland cement, structural clay products will follow. Target: best uses and forms for each material in the home.



Basic Materials Battle for

More and more, basic raw materials are vying these days for new markets and, in doing so, are stepping on the toes of traditional materials as they deepen their penetrations into a wider variety of end uses.

Nowhere is this competitive trend among basic raw materials producers more clearly evident than in the housing industry, which once was left pretty much to wood, glass, and brick.

The house pictured above stands as a symbol of the commotion in the venerable home-building field. Robert R. Porter, president of Keasbey & Mattison Co., asbestos cement concern that contributed the novel roof, describes the impact of the house as that of "a great big bump" that jolted a sedate industry into new thinking.

New thinking is the order of the day in the \$22-billion home-building world. It is steaming up for a mighty competition in the decades ahead. Its twofold search focuses on (1) a better product for the huge market just around the corner, and (2) better ways of getting

that product into the consumer's home lot.

• **"Research" Houses**—The raft of "model" houses, promotional houses, research houses that dot the landscape today is a symptom. The National Assn. of Home Builders, with an obvious stake in the field, has an extensive research project under way.

What makes the house pictured above a bit different is this. It is the first of six projected by Living for Young Homemakers magazine, co-sponsored by building materials suppliers.

The immediate marketing significance is that the basic materials suppliers are striking at the market—not just their own customers, but clear down to the final buyer, the consumer.

Living's architect, Robert M. Engelbrecht, conceives the program as a step toward pure research in the total house. While the co-sponsors frankly have an eye on the project's promotional aspects, they, too, admit to long-range gains. Thus, work on its house has speeded development of two important

products, says Robert Taylor, director, Structural Clay Products Research Foundation. Keasbey & Mattison has attested the impact of the asbestos cement house by putting its architect, R. Duane Conner, on a retainer basis, to continue the "jolting" process.

• **Jolts**—It's clear that some of the older suppliers have suffered jolts of a less comfortable nature in the past few years. New and aggressive competition has crashed into the field. Aluminum, steel, lead, paper, plastics, tile, glass—you name it; they are all involved.

A smattering of statistics serves as a clue. Early this year, David P. Reynolds, executive vice-president of Reynolds Metals Co., pointed out that in 1955 the average new home contained about 80 lb. of aluminum. By last year, this had nearly doubled, to 150 lb. By 1965, he predicted, it will be up to 480 lb. He reckoned that some 45,000 houses containing larger amounts—1,500 to 2,500 lb.—would go up in 1960. About half of aluminum's total 1.3-



Home-Building Market

billion lb. of building sales went into home building last year.

- **Fighting Back**—Meanwhile, lumber has been barely holding its own. National Lumber Manufacturers Assn. estimates that total lumber consumption—of which home building accounts for about 70%—came to 40.5-billion bd. ft. last year: more than 1958's 37.8-billion, but short of 1950's 42-billion.

Asbestos cement has felt the blast. Census of Manufacturers shows a drop in shipments of flat sheets and wall-board from 104-million sq. ft. in 1954 to 85.4-million in 1958; siding shingles and clapboard eased off, too.

I. Problems

By now, the older industries are fighting back. Much of the battle lies far from the market place, in the research laboratories, where new products and technology will ultimately shape the course of the market. But at the market level, the battle is very much here, right now.

Veterans and newcomers share some headaches. Both must contend with outmoded building codes that take no count of improvements. Labor tends to view suspiciously new techniques to speed the building process.

To sell housing, you must blanket a broad area. In the custom-built home, the architect and the consumer rule the roost. In the mass market, the consumer buys what the builder builds at his price. If you sell the builder, you have to provide a source of supply.

And the long distribution chain has grown creaky in the postwar years. Most building materials traditionally moved from manufacturer to distributor to retailer to home builder. Then came the mass builder, to bypass one or even two of those stages. The prefabricated house manufacturing, too, has eaten up some of the dealer's pie.

II. The Challengers

Veteran industries point to aluminum as the fightingest new contender.

Aluminum had been slipping into the house since the war piecemeal, often via the remodeling market. Entrepreneurs sold aluminum windows, awnings, and the like, sometimes door to door. The specialty "applicator" came into view, again largely for modernization.

Reynolds had had siding in 1946. A couple of years ago, aluminum siding, with color finishes baked on, came in, and aluminum geared for the attack on the new house market.

In 1957, Aluminum Co. of America cooperated with some 20 builders to put up all aluminum homes, its Care-Free Homes. This was more of a teaser than a serious sales venture—to show how aluminum could be used. Cagily, one of the builders put up a Care-Free home next door to big prefabber National Homes Corp. Shortly, National Homes had a line of prefab aluminum houses. National Homes reports that 50% of the 36,500 units it sold last year were of aluminum, and thinks it may run 75% in 1960.

- **Reynolds' Tactics**—Reynolds Metals



Using a process developed in Europe, the largest producer of super purity aluminum in America is Aluminum Foils, Inc., Jackson, Tenn. AFI is also an independent producer of coiled sheet and foil of standard purity aluminum. A recently completed 200% plant expansion now boosts production capacity to over 300,000 pounds of super purity aluminum per month.

AFI's super purity aluminum is known as Raffinal®, and as Reflectal® when alloyed for structural strength. Raffinal is available in the form of pig, foil, pellets or as desired. Reflectal is offered in extrusion billets, coiled sheet and pig.

Super purity aluminum is much brighter, more corrosion resistant, a better electrical and heat conductor, and more ductile than aluminum of even a few thousandths per cent less purity.

It is finding rapidly expanding use in catalysts for petroleum refining, in highest reliability capacitors, corrosion resistant trim on automobiles, boats and hardware. Varied new uses are being discovered in other fields.

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... for dealers and builders, there's a staggering amount of operating, technical, and merchandising aids ...

(STORY on page 140)

Co. claims that better than half of the aluminum sold to the home-building field last year was Reynolds' aluminum. Traditionally consumer-oriented in its marketing, it moved heavily into the new house market in 1959. A major problem, says A. H. Williams, general manager, Architectural and Building Products Markets, was that consumers just don't like to change. With color and a texture to give the shiny material the look of wood, aluminum had jumped a major hurdle.

At the start, Reynolds went after the higher-priced homes, to assure prestige for its product. Its House of Ease program persuaded selected builders to put up houses of their own design, using at least 2,500 lb. of aluminum and some 35 products. By now, the company has a House of Ease builder in 95 market areas, is extending this to the rest of the 165 major markets this year. These houses range from \$18,000 to \$45,000.

This year, it is extending the program to reach the mass builder. Its Easy Living program—just starting—embraces the fabricator, distributor, and builder.

Fabricators who participate must buy 50% of their aluminum from Reynolds, and Reynolds must approve their products. They sell to Reynolds' Aluminum Distribution Centers—there are now three, will be 16 by the end of the year. The centers in turn sell to the Easy Living builder. He must put up a model aluminum house, must have a minimum of 10 building lots, and must use at least 10 aluminum products. Bottom price: \$10,000. The Easy Living builder who buys from the center gets a 3% discount for advertising.

Like most people in the business, Reynolds sees the big potential for housing in the prefabricated component. Lu-Re-Co (Lumber Dealers Research Council) in 1954 came up with a component system for the lumber dealer, to stave off the inroads of the fully prefabricated home. It has licensed some 1,600 of the 12,000 members of the National Retail Lumber Dealers Assn. to use its system.

This group is a major Reynolds target. Last year the company made a deal with Lu-Re-Co Service Assn. whereby Reynolds—and its fabricators—sold at mill prices to the association, which then sold to Lu-Re-Co dealers at a 5% profit, which goes into Lu-Re-Co's research program. About 100 dealers joined up, selling an aluminum line un-

der the name Independence Homes, designed by Lu-Re-Co with help of Reynolds engineers.

• **Kaiser's Program**—Like Alcoa and Kaiser Aluminum & Chemical Corp., Reynolds is backing all this activity with a sweeping consumer advertising program—at Reynolds, to the tune of \$2.5-million. For dealers and builders, there's a staggering amount of operating, technical, and merchandising aids.

Kaiser also bears down heavily on selling the builder, the NAHB builder. Last fall it put on a pilot promotion in six cities, signing up 267 builders, who built 522 model homes. This spring it expanded the program to 16 cities. Kaiser does not require that it supply the aluminum for its builder's products.

To tell consumers and builders of aluminum's potential, Kaiser is establishing permanent display centers in Cleveland and Kansas City. These do not sell, but they do put on technical classes for builders, and, for would-be home buyers referred to it by a "professional" builder, clinics in what a would-be home buyer should know.

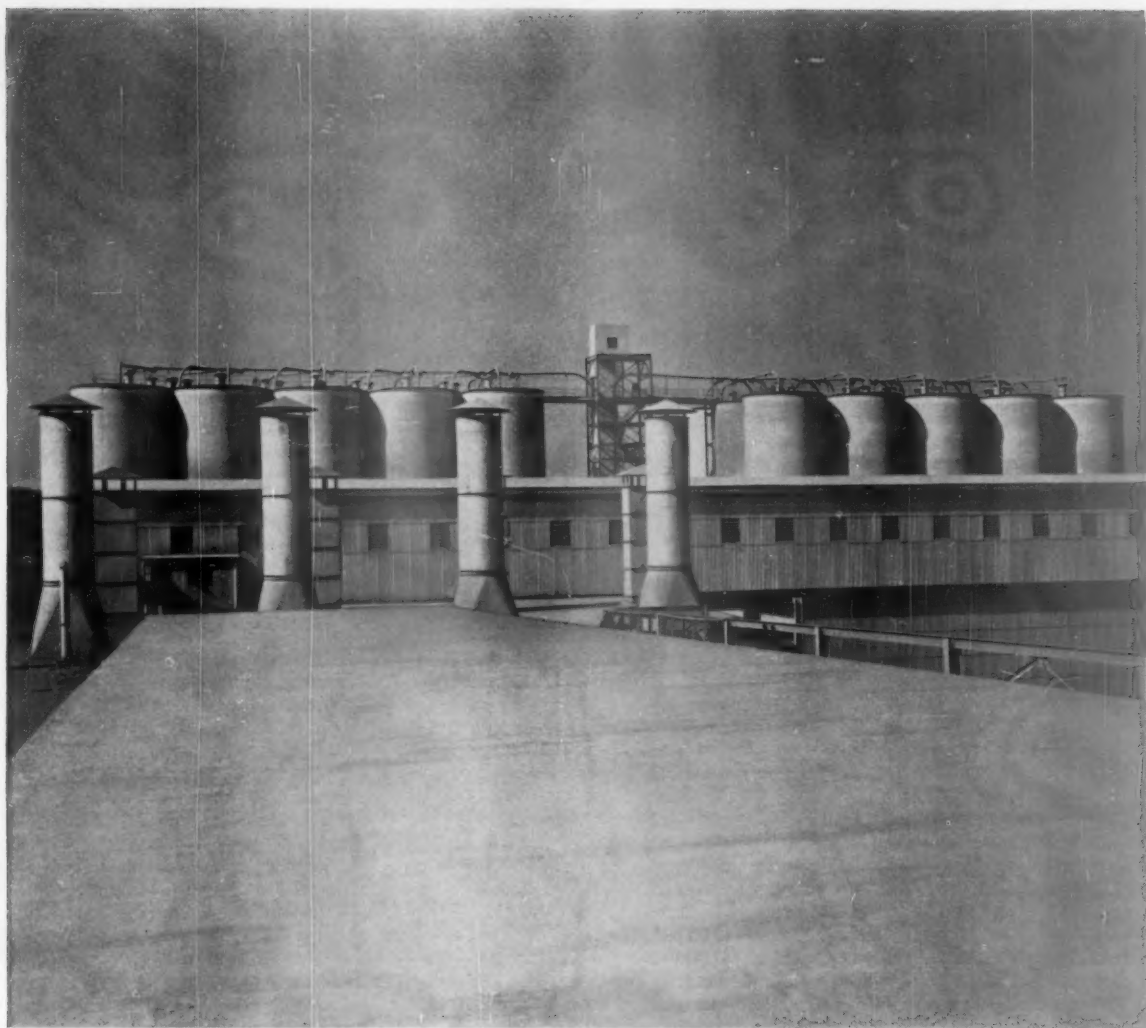
• **Alcoa's Tack**—Alcoa, with a big stake in commercial building, puts heavy stress on the architects, who dominate that field.

Alcoa has gone off on a different tack on one important point. It fabricates its own siding to keep firm control on the product. Reynolds fabricates some items, but sells most of its output to fabricators.

• **Newcomer**—Olin Mathieson Chemical Corp., only two years old in aluminum, looks for big doings in the housing market. Since it is still working itself into the black in aluminum, it has no dollars for major consumer advertising. "We don't need them," comments John Jansson, manager, architectural sales, dryly. "Our competitors are doing that job."

Jansson adds that "this is a company where the marketing concept rules." It is deep in product development and research, and in market analysis. It is sponsoring the Living aluminum house, views this as likely to make a valuable contribution to its lore. The company has a plus in its own chemicals division, and counts its newness and relative smallness as an asset. With no huge output, which must be moved like a commodity, on price, it can pick the profitable products, hit them in depth.

• **Big Pitch**—Aluminum's big pitch, it's



Fuller Pneumatic Materials Handling

FEEDING THE SILOS OF AMERICA

Fuller has put more than 30 years of engineering development into pneumatic bulk materials handling systems. Benefits to users are manifold, including speed, sanitation, flexibility, low investment and maintenance.

Many plants, large and small, have made major savings by handling bulk products or raw materials with Fuller pneumatic conveying systems. For example, Fuller systems are delivering dry drilling mud to off-shore oil rigs; collecting fly-ash at large power

plants; and handling cement in the several phases of manufacturing and distribution. Initial cost is rapidly recovered in increased operational efficiencies. Fuller pneumatic "pipelines" install easily in a minimum of space, perform complex conveying operations automatically. If you have a materials handling problem, think pneumatics . . . *specify* Fuller. Write or phone today outlining your problem. Fuller will gladly furnish additional information with appropriate recommendations.

2639
G-184A



FULLER COMPANY

180 Bridge St., Catasauqua, Pa.
Subsidiary of General American Transportation Corporation
Offices in Principal Cities Throughout the World

Fuller

... pioneers in harnessing AIR

"... a fantastic amount of selling is going to have to be done before the first production model is erected ..."

(STORY on page 140)

easy to see, is low maintenance for the consumer. For the builder, economies through ease of handling is a major point. The metal scored a point early this year when the Federal Housing Administration allowed higher mortgages on the basis of lower maintenance costs.

• **Steel's Entry**—After several abortive efforts, partly stymied by World War II and Korea, U.S. Steel Corp. got really going in the all-steel home in 1955, selling under franchised dealers. But prefabs didn't grow so fast as it had hoped. Price, builder resistance, and building code restrictions hamper the all-steel home. So now, it, too, is turning to the builder. It is researching seven projects for NAHB's Research Institute: a steel window, door, foundation, roof system, a system for putting up dry wall, a stair design, and a steel foam panel. By this approach, it hopes to get into the home via the builder himself. The company points out that by using its fastening for dry wall erection, a builder can cut wall construction from six days to a day and a half—and some 400-500 lb. of steel will get into the house.

U.S. Steel is one of 25 companies participating in still another program, the Ferro Porcelain Enamel Research House, designed by Carl Koch, and sponsored by Ferro Corp. Says Ferro, "A primary objective is to explore methods of adapting residential components to the techniques of mass production." The next step will be to find a company big enough and progressive enough to start mass production. And Ferro admits that "a fantastic amount of selling is going to have to be done before the first production model is ever erected."

• **Plastics' Problem**—Another contender that concedes it has a selling job ahead is plastics. Plastics are already in the home—in insulation surfaces, paints, floor coverings—Monsanto Chemical Co. points out. Some 22% of total output goes into building, or about 1-billion lb. It will be a long day, Monsanto feels, before it can match the 100-billion lb. of portland cement, the 85-billion lb. of lumber, the 20-billion lb. of steel going into construction.

Price is a major hurdle, but even greater is the psychological problem of consumer reaction. Both Monsanto and Dow Chemical Co. agree that it will take something like a revolution in architecture before structural plastics come into their own. So far, major efforts toward housing for both companies lie in fundamental and application studies. But both are confident that

the architectural revolution will come—with the curved and free-form lines that would lend themselves to plastics.

III. Rebuttal

"The lumber manufacturers are awake for the first time in their lives." So an observer sums up the spate of activity in this venerable business.

With share of market shrinking, prices and profits down, lumber saw the writing on the wall three years ago. Two years ago, the National Lumber Manufacturers Assn. shook up the industry, got together a \$1.3-million budget—based on contributions of 10¢ per 1,000 bd. ft. of output of its members—and launched the first national promotion for wood, not just a species. Last month, its National Wood Promotion Council of the association voted—subject to members' approval—to up the ante to 16¢ per 1,000 bd. ft.

Much of its budget has gone into a major consumer advertising campaign. But architects, builders, and dealers are getting the word. If the council gets its bigger budget, much of the increase will go into dealer aids.

One stigma of wood, says Weyerhaeuser Co.'s Lumber & Plywood Div., is its age. "If it could be discovered tomorrow, it would be a terrific success." Another difficulty, points out Mortimer B. Doyle, of NLMA, is that, unlike the big new competition, it is a fragmented business. The 10 largest producers account for 8% of output.

• **Pros and Cons**—Lumber feels that aluminum is Enemy No. 1 right now—and that it has been oversold. It stacks counterclaim against claim—on fire resistance, strength, safety. Aluminum claims to be an effective insulator; wood says aluminum is the worst possible insulator. Wood may rot; aluminum dents, and eventually, corrodes. Properly treated, wood will withstand rot and termites. And the battle is joined in earnest.

Wood has certain pluses: its warmth, beauty, variety. Builders know the material. It's easy to work with. Research is developing new techniques, new products in wood as in everything else. And the supply can be counted on. Timber renewal just about matches timber withdrawal, the industry says.

Wood admits it has probably lost some markets for good. The basement-less house eliminates some lumber. Huge glass areas that have proved such a boon to Libbey-Owens-Ford Glass Co. and Pittsburgh Plate Glass Co. cut into wood's market. And glass, too, is

challenging the field in structural products. Owens-Corning Fiberglas Corp., with Kimble Glass Co., will sponsor Living's glass house. Glass shares a problem with plastics, apparently: the need, not so much for new products, as for an architecture that can make the most of structural glass.

But wood is confident that with better product, better techniques, better merchandising, it is here to stay.

• **Working Overtime**—Touch at any door, and you'll find a company or an industry working overtime in the competitive battle. Johns-Manville Corp. started a 7-Star Dealer program three years ago, now has over 628 signed up, with all the tricks in the book to help the dealer and builder sell. Recent successful efforts to give asbestos cement a plastic colored coating will prove a boon, says A. L. Fowler, manager of product planning for Johns-Manville's Building Products Div.

Structural clay products—mainly brick—have done better on the home front than most of the older materials. Over-all brick shipments have wobbled a bit, from 7.74-billion bricks in 1955 to 6.3-billion in 1958, up again to 7.25-billion in 1959. But in new single-family homes, brick has risen from 29% in 1954 to about 45% now. Brick, like wood, has always been a favorite with consumers. Partly because the consumer can afford it, and partly through new bricks and brick-laying techniques that have pared costs despite higher labor charges, brick in housing is going strong. And its association is both research- and promotion-minded.

Most of the companies involved in the competition insist they don't see their material as the answer to every housing need. Andersen Corp., co-sponsor with Weyerhaeuser on the Living wood house, for example, is as deep in aluminum windows as it is in wood. The ultimate gainer for all the competition will be the consumer: through better product, more efficient techniques—and, as Weyerhaeuser puts it, a chance for "selectivity."

• **New Patterns**—Does all this activity forecast major distribution shifts?

Most people think not. The mass builder and the prefabricator have had more impact on this score. As everyone from the flourishing plywood industry to the newcomer is wooing the mass builder, his hand should be strengthened. But they are wooing the dealer—a big factor in the fixit market—too.

Among the newer materials, there are those who see the day when houses will sell very much as cars sell, through outlets of major manufacturers. Others feel this is unlikely. The house is a complex product, built for individuals. The industry isn't apt to lose its fragmented character in a hurry. **END**



Installation photo courtesy Lancer Industries Inc.

Shipshape pools with GLIDPOL Resins

Reinforced plastic pools by Lancer, world's largest manufacturer of plastic swimming pools, are designed for carefree enjoyment with GLIDPOL GEL-KOTE and GLIDPOL lay-up resins.

GLIDPOL GEL-KOTE, a Glidden pigmented polyester resin available in varied colors, provides smooth, porcelain-like surfaces which minimize maintenance—do not require painting. They resist the adhesion of algae and the harmful effects of sun, chemicals, heat or freezing cold as well.

GLIDPOL lay-up resins, reinforced with glass fibers, back up the GEL-KOTE to give Lancer Pools their structural strength.

From swimming pools to bathtubs, both GLIDPOL GEL-KOTE and GLIDPOL lay-up resins help make reinforced plastic products more saleable. Write for complete information on the GLIDPOL polyester resin system best suited to meet your particular requirements.



GLIDPOL POLYESTER RESINS

The Glidden Company

INDUSTRIAL PAINT DIVISION

900 Union Commerce Building • Cleveland 14, Ohio

In Canada: The Glidden Company, Ltd., Toronto, Ontario

There's a GLIDPOL Polyester Resin system, plus Glidden Technical Service, to help you do it better, more economically, whatever your product, process or problem.



PRINCE PHILIP in New York to open British Exhibition tours Coliseum with Gov. Rockefeller and Vice-Pres. Nixon.



SILVERSMITH'S masterpiece is a roast beef server on wheels. The \$7,000 price tag doesn't include even a whiff of the beef.



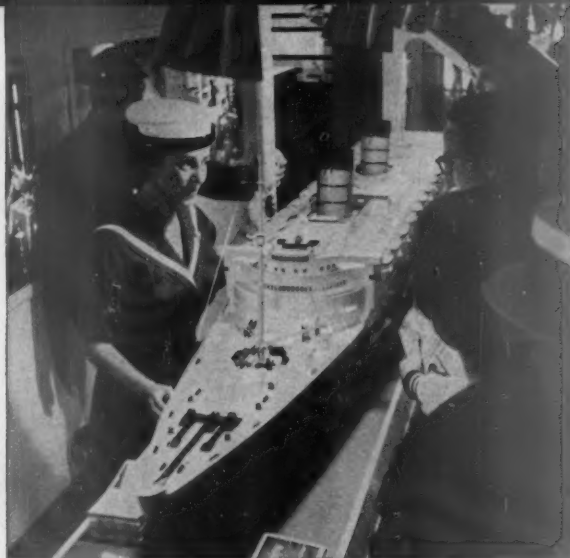
TEXTILES display by British Woolens Industry include garments from fall collections of top U. S. designers.

British Woo U.S. Importers With





AUTOMOBILES account for about 25% of dollar exports to the U.S. Standard-Triumph Motor Co. is using exhibit to boost its sales here of its new Triumph Herald.



TOURISTS get a sales pitch from a Cunard Line representative who is extolling the charms of the Queen Elizabeth. About 390,000 Americans will visit British Isles this summer.

\$200-Million Sample

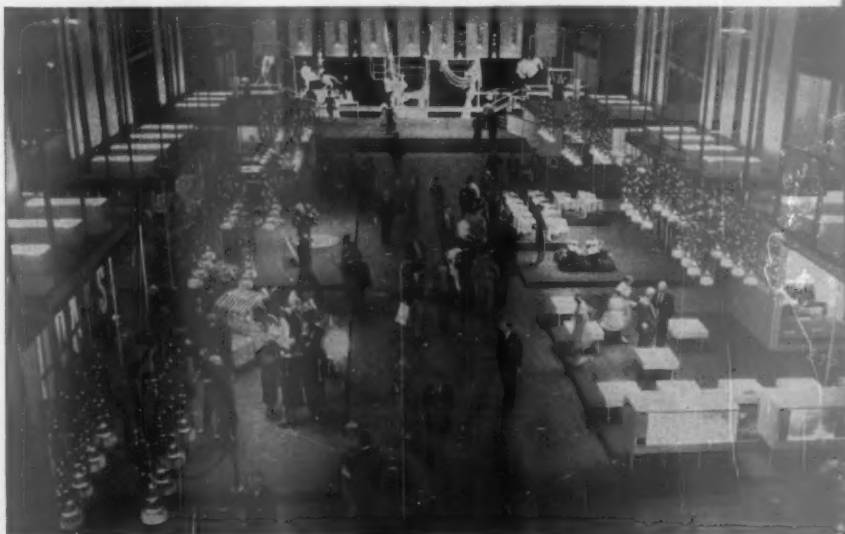
With a flourish of trumpets for Prince Philip, husband of Queen Elizabeth II, Britain last week brought its version of the hard sell to the U.S.

The Prince, greeted by Vice-Pres. Richard M. Nixon and Gov. Nelson Rockefeller, officially opened the British Exhibition, a \$10-million show on all four floors of New York's Coliseum.

Before the exhibition winds up June 26, its sponsors—including the 400 British companies displaying their wares—hope to attract a half-million visitors plus another 25,000 buyers from all parts of the country.

Thus, though the exhibits include bits of Olde Englande—such as replicas of Lloyd's of London Coffee House, an English pub, and some traditional British craftsmanship—the main goal is strictly business. Britain, like a good part of the rest of the world, wants to sell more products to the U.S. One Britisher says: "We want them to forget Beefeaters, bowler hats, and umbrellas and buy the hi-fi sets, sports cars, toys, and capital goods."

W. P. N. Edwards, managing director of British Overseas Fairs, Ltd.—which organized the show for the Dollar



LLOYD'S OF LONDON Coffee Shop in replica (left) also shows street on which the famous old landmark is located.

FIRST FLOOR of Coliseum features British achievements ranging from developments in atomic energy to turbojet engines.

door-to-door delivery



with Eager-Beaver care!

Why pay extra for door-to-door delivery? That's *included* with Railway Express service! Our Eager Beavers pick up the shipment at your very doorstep, see it safely all the way to your customer's door. There's no extra charge for this service within REA authorized limits in the U.S. And look what else you get with Eager-Beaver service:

- Nationwide coverage to some 23,000 communities in the U.S.
- International service to and from almost anywhere in the world
- Unified, one-carrier responsibility all the way
- Lower rates on certain shipment aggregations of 300 lbs. or more
- Special low rates on many other commodities
- The kind of transportation that best suits your particular needs

No other organization can match Railway Express Eager-Beaver service. And our long-range improvement plans are making it even better. Next time you ship, call Railway Express—and see!





ENGLISH PUB attendants can tell you how to drink ale by the yard, or what collar a "grandmother" should have.

Export Council and the Federation of British Industries—describes the purpose of the show quite simply: "We have only touched the fringe of the richest market in the world."

• **Hard Facts**—To American businessmen beset by increasing foreign competition that seems a little misleading. Actually, British exports have risen sharply in the last few years. In 1959, for the first time, they topped \$1-billion to the U.S. alone, just a shade less than the United Kingdom imported from this country. This year, for January and February, British sales topped the same months of 1959 by 20.5%.

This upsurge of British exports to the U.S. over the past five years reverses the stumbling efforts of the

export-or-die days of the early 1950s. Along with other countries, Britain has largely overcome its twin errors: failure to live up to promised delivery dates, and old-fashioned packaging.

Now, with a firm footing in the U.S. market, Britain has launched a major effort, with the New York exhibition as a vital part of it, to (1) increase its share of the total U.S. market, and (2) keep other West European companies from taking what it considers its fair share of U.S. imports.

British officials point out that, despite the biggest increase in trade between the world's two richest countries, total British imports here last year amounted to just \$6 per capita against \$32 per capita sold in Canada. They hope to

boost exports to the U.S. this year by another 15% to 25%.

• **Booster**—The British Exhibition is expected to go a long way toward helping industry achieve that goal. The major emphasis is on producer goods, including electronic products, as well as consumer durables—a switch in the pre-World War II pattern when British exports here were mainly textiles, china, and other perishable items.

Since the war, the big gains have come from the automobile industry, which accounted for 25% of dollar exports to the U.S. This, say some Britishers, is almost too much reliance on one industry; so they are stressing diversification for the long term.

Nevertheless, the British Auto Manu-



UNIFORMS are displayed on live models. Next week, 500 troops from the three British Services will put on a spectacular performance at nearby Madison Square Garden.



CHURCHILL CORNER depicts some of the highlights in the career of Sir Winston Churchill, England's wartime leader.

Healthy Business Climate



-one of many

Baltimore competitive advantages

The business climate in the Baltimore area is one in which industries grow and prosper. That is why it has become one of the nation's major industrial centers. One-half of the nation's population is within a 48-hour delivery radius. Banking facilities are adequate to finance large operations. In the past 10 years over \$1 billion has been spent on new industrial plants and the enlargement of those already here.

Our Industrial Development Service will gladly make an individual Plant Location Study for you. We'll give you facts that apply to your particular needs. No obligation of course—and your inquiry will be held in strict confidence. Mail the coupon below, attached to your letterhead.

BALTIMORE *Serving one*
GAS and ELECTRIC *of America's*
COMPANY *great*
industrial
centers

Baltimore Gas and Electric Co.
Industrial Development Service
1103 Lexington Building, Baltimore 3, Md.

I would like to have you make a
special Plant Location Study for us.

Name

Title

Firm

Address

City State

facturers Assn. has a major display at the Coliseum in an effort to hold its share against the inroads on British makes by Detroit's new compact cars and by other West European manufacturers.

A tipoff on the importance of the exhibit is the fact that Lord Rootes, chairman of the Rootes Group (Humber, Hillman, Singer, Sunbeam), is one of the joint chairmen of the exhibit. And Standard-Triumph Motor Co., Ltd., which is rapidly expanding its production to 300,000 units a year, is using the exhibition to boost sales here of its new Triumph Herald convertible and sedan. Other companies are showing a wide range of light and heavy trucks in the U.S. for the first time.

Besides cars, the sponsors have gone all-out to provide something for just about everybody—from artificial fishing

lures and fine candies and cheeses to a model of an atomic power station and diesel engines. About \$200-million worth of goods are on view, including a rare stamp collection and some price-less historical objects.

• **Timing**—The exhibit is billed as the biggest ever put together by Britain outside the United Kingdom. Conceived in New York by the British-American Chamber of Commerce and the Dollar Export Council, the show is timed to dovetail into Britain's shift in trade relations with the U.S.

A few months ago, Britain dropped its quota restrictions on American goods, thus opening its home market to even greater competition from the U.S.

"You're having a fine go of it here," says one British industrialist. "So why shouldn't we have a free go over there in America?"



CRAFTS exhibit includes about 200 items, including embroidered fabrics, tapestries, rugs, enamels, and glass.

Accept this
silver-dollar
paperweight FREE



Genuine U.S. Silver Dollar in heavy Lucite



...and see how
this easy-to-use
calculator delivers
right answers
faster!

Wherever the amazingly simple Marchant Deci-Magic calculator is on the job, it speeds the flow of accurate, dependable figurework, cutting overtime and overhead.

We'll give you an elegant Silver-Dollar Paperweight just for seeing how the Deci-Magic or another Marchant calculator would save *you* time and money on your regular figuring jobs.

There's a Marchant model designed expressly for your figurework—and it's easy to own on your choice of various time-payment and leasing plans. Generous trade-ins, too.

Ends decimal errors for her...
delivers dependable figurework for you

On the Marchant Deci-Magic, the operator touches just one key and *all* decimals are set automatically, for the entire problem *and* in the answer. Then she just "writes" the figures in the keyboard as she would on paper. Deci-Magic does *all* the rest, delivering the *right* answer—no doubt about it!

MARCHANT

Fine calculators and adding machines
of advanced design



Send for your paperweight now!

Receive a gleaming, U.S. silver dollar encased in a handsome block of jewel-clear Lucite. No printing or advertising. A distinctive, where-can-I-get-one-like-it conversation piece for your desk or home.

Attach coupon to your business
letterhead and
mail now!

Marchant Division of **SCM** Smith-Corona Marchant Inc.
Oakland 8, California

Please instruct the nearby Marchant office to deliver my free Silver-Dollar Paperweight when it is convenient for me to try a Marchant Deci-Magic calculator on my own figurework, without obligation.

NAME _____

TITLE _____

Request honored only when made with this coupon, with name and title filled in and business letterhead attached. Limited stock—offer subject to supply on hand.

B-6

In Marketing

. . .

Maker of Controversial Battery Additive Agrees to Tone Down Advertising Claims

AD-X2 popped up in the news again this week. The controversial battery additive, manufactured by Pioneer, Inc., Oakland, Calif., has been the object of attack and defense among scientists, bureaucrats, and the general public ever since 1949. That's when the Federal Trade Commission began its first investigation of the product, which purportedly lengthens the life of batteries.

Jesse M. Ritchie, Pioneer's president, has been defending his AD-X2 ever since against the FTC, the Post Office Dept., and the National Bureau of Standards, and scientists who say his claims for the product just don't stand up.

FTC finally decided in 1956 to drop charges of false advertising on the strength of customer assertions that the product was doing what it was supposed to do.

Now Ritchie and his Pioneer, Inc., have agreed to delete from their advertising the wording: "Battery AD-X2 proved before the Federal Trade Commission" and "Only AD-X2 is government tested and approved." The FTC filed a complaint earlier this year against the use of that language. In a long letter released this week, Ritchie blasted the FTC for continuing to "harass respondents," but consented to end the questioned advertising, but without admitting any intent to deceive the public.

. . .

Big Tire Companies Hold Slugfest Over Their Advertising Claims

The giants of the tire industry were in the unprecedented position this week of trading verbal blows over their advertising claims. It all started when B. F. Goodrich, No. 4 in size, proclaimed in two national magazines (the Saturday Evening Post and Look) that it will not trade on words like "speedway-proved" and "stronger than new-car tires" to confuse third-line and first-line tires.

Although Goodrich Pres. J. W. Keener, who signed the ad, did not name the competitors he was referring to, the latter didn't hesitate identifying themselves. Goodyear and Firestone, No. 1 and No. 2 in the industry, were quick to respond with some barbed comments.

BFG's current ads are part of a national campaign the company started last year aimed at educating motorists to purchase the quality of tires they need. These ads have been hammering away at the theme that "buying the right tire as easy as BFG." What the company is saying is that there are different tires for different services. If you do a lot of long distance driving, you shouldn't buy tires of less than original equipment quality. If you only drive about the city, lower-priced economy tires are satisfactory.

Keener's blast at his big Akron rivals, unusual even in an industry noted for hard-selling advertising tactics, came

after the introduction of \$12.95 third-line nylon tires.

Goodyear commented that it "seems unfortunate that at a time when the credulity of advertising is under question, one company has taken it upon itself to make the claim that the only honest advertising is its own." It said it agreed no company should sell a tire unsafe for turnpike driving without saying so, but added that its \$12.95 economy nylon tire "is better than some so-called first-line tires."

Both Goodyear and Firestone said there is no question about the safety of their lowest price tires at high speeds.

. . .

MRC Develops Methods to Correlate Exposure to Media, Dollar Sales

A new measurement of the market values of specific media came out of the American Marketing Assn. meeting in Minneapolis this week. Curtis C. Rogers, president, Consumer Panel Div., Market Research Corp. of America, told of a method that aims to determine the correlation between exposure to specific media and dollar sales.

It isn't enough to know, Rogers said, how many readers of a magazine buy baking powder. The key question is how much baking powder do those readers buy?

Its Consumer Panel threw new light on that question. Panel families have been reporting to MRC on what they bought and what they paid for their purchases each week. Starting last fall, 5,800 panel families also began to report their readership of magazines and newspaper supplements, and their TV viewing. Thus, the missing link between quantitative buying and media exposure is filled, Rogers said.

A result of this knowledge, he added, was that marketers now have a yardstick that tells them not just how much it costs to get 1,000 exposures but how much it costs to reach \$1,000 of sales potential for a product with a given medium. From the number of households exposed, a knowledge of the depth of the exposure, and a knowledge of the amount spent for a product, MRC comes up with what it calls an HEP figure (Households-Exposure-Purchases). Divide this HEP figure into the cost of a proposed ad, and you get the cost of reaching \$1,000 of sales potential.

. . .

Suburban Pressure Hits Sales, So Store In Detroit Lets Out a Fifth of Its Space

Another sign of what suburban shopping is doing to downtown merchants appeared last week when Crowley, Milner & Co., Detroit's second largest department store, announced it had leased one-fifth of its main store to the Veterans Administration. The move is a direct result of the declining importance of the downtown operation. With annual volume running at \$25-million including branches, Crowley's main store has lost 30% in trade during the past 10 years.

Though Crowley says it has lost no downtown volume since it opened its two branches last year, the VA agreement will enable it to consolidate its selling space for convenience and provide \$198,000 annual rent.

Steel framing is handsome

The exposed steel frame is every bit as handsome as the glass and concrete with which it's combined. You can paint steel to blend, or to contrast. In combination with other materials, steel offers a high degree of fire safety.

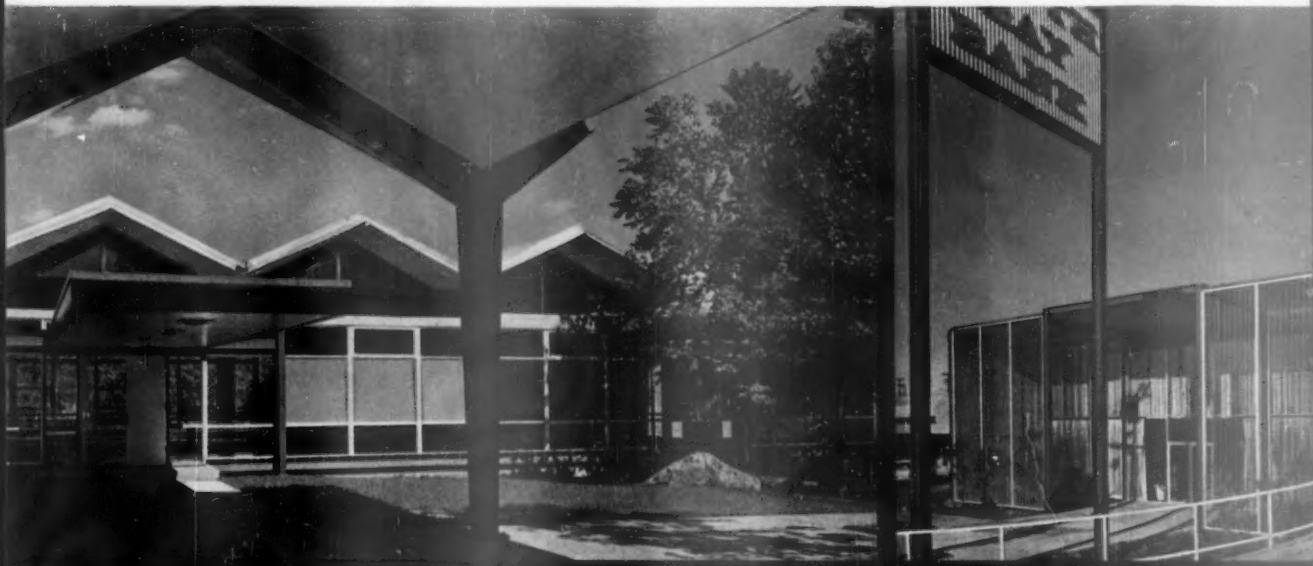
Acton Elementary School, West Acton, Mass.

steel is safe

Steel is permanent. Its great strength makes it the hands-down choice for framing buildings in earthquake and hurricane areas.

South Bay Bank, Manhattan Beach, Calif.

and it's strong



steel goes up fast

No other framing material can be put up as fast as steel framing. Other trades can move in quickly, speed the building's completion.

First Congregational Church, Sunnyvale, Calif.

and it's easy on the budget

A pound of steel costs considerably less than a pound of bread. Maintenance costs are low, too, since steel framing never sags, warps, or rots.

Architect Ulrich Franzen's house, Rye, N. Y.



You might like to have several of our booklets which show how architects and engineers are making imaginative use of steel framing for light-occupancy structures.

For your copies write: Bethlehem Steel Company, Bethlehem, Pa.

for Strength
... Economy
... Versatility

BETHLEHEM STEEL



AVISCO

COOK OUT WITH AVISCO FIBERS AND FILMS

Newest badge of American freedom is the outdoor grille. Shrewd businessmen are climbing on the chuck-wagon with a lift from Avisco fibers and packaging films. Hot dogs, buns, pickles, and potato chips, they know, keep freshest in sparkling Avisco cellophane. That goes for cold meats, watermelon and dozens of other outdoor favorites from the food market. Avisco fibers contribute handsomely to the outdoor look too. Sport shirts and shorts are of Avron* high-strength rayon or Cotron¹, a wonderful fabric of cotton and Avisco rayon. Let the products of American Viscose chemistry make the cookout a sell-out for your wares.

AMERICAN VISCOSÉ CORPORATION

Philadelphia 3, Pennsylvania • New York 1, New York

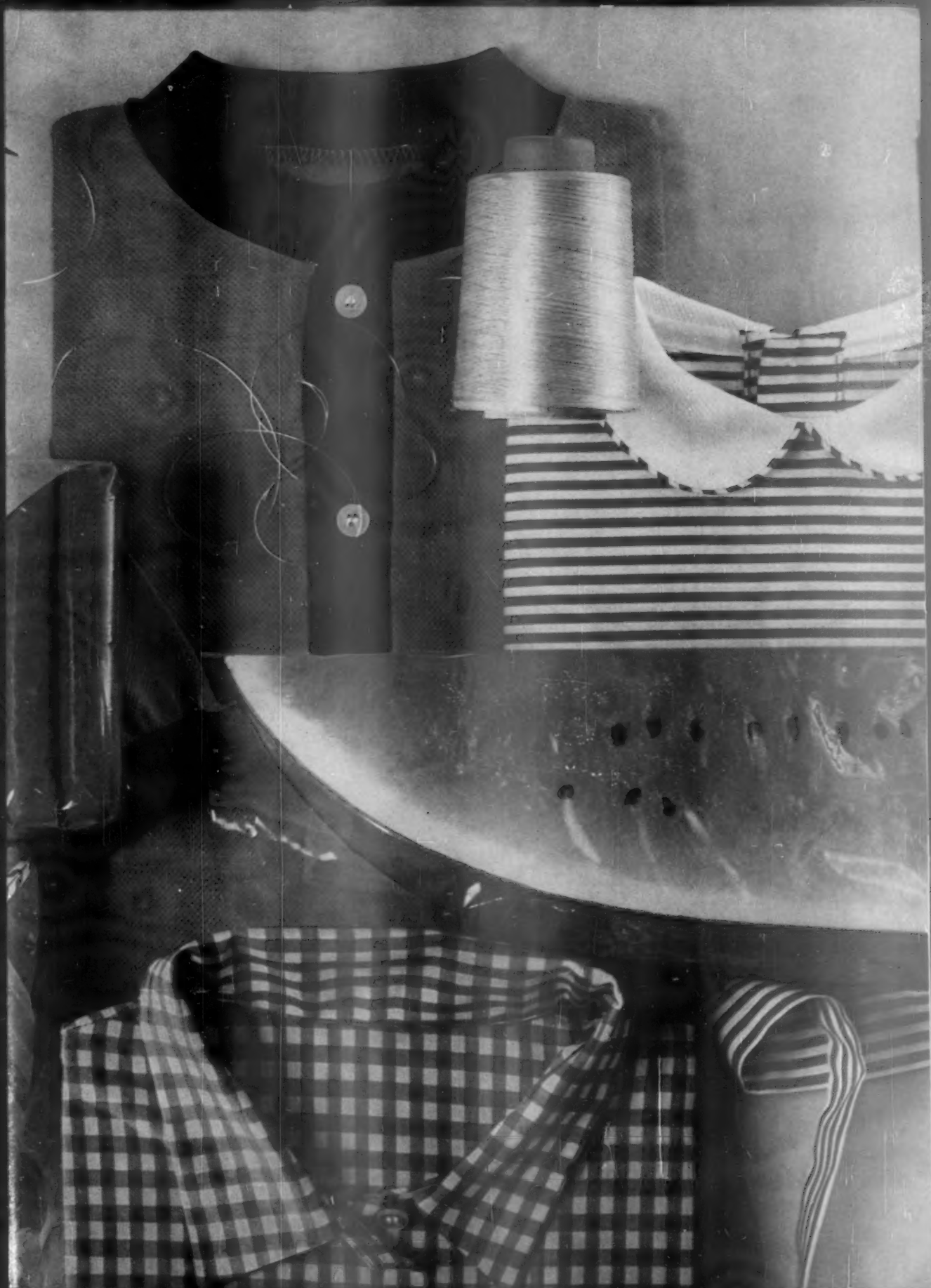
Makers of rayon filament and staple fiber, viscose tire yarn, cellophane, acetate yarns, cellulose bands & casings, plastics
Associated Companies (50% Owned): Chemstrand Corp. • Ketchikan Pulp Co. • AviSun Corp.

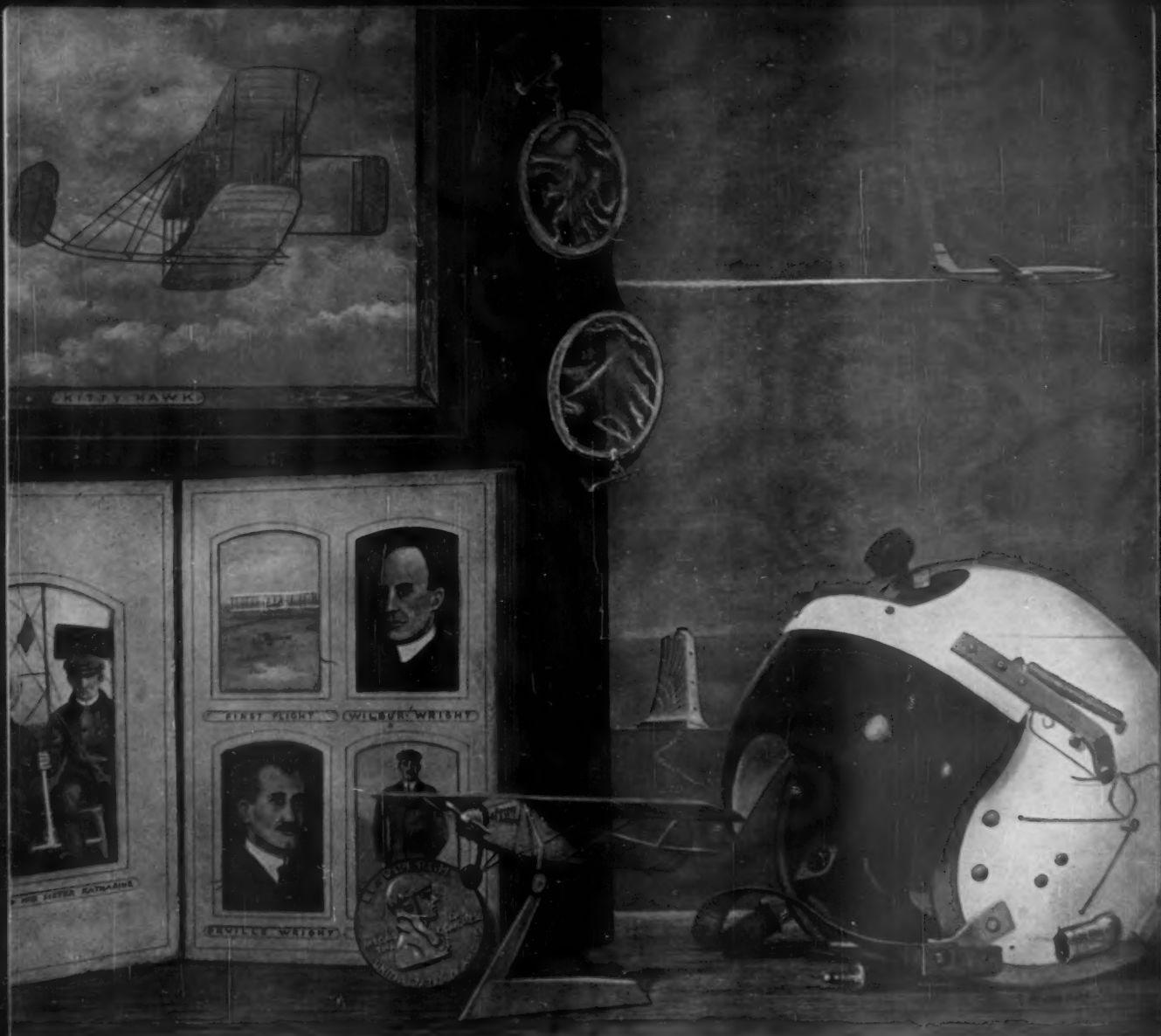


*Trademark of American Viscose Corporation ¹ TM AVC for fabrics made of cotton and Avisco rayon

LOOK TO **AVISCO** FOR NEW IDEAS

FIBERS AND PACKAGING FILMS





Top Performance...

Flight performance undreamed of a few short years ago is today's standard — with the Wright brothers, Lindbergh and other top performers of the past recalled only in story, legend and monument . . .

So it is in the construction industry, with today's mighty machines surpassing even the most fanciful dreams of pick and shovel days. Here, today's standards are being set by every day performances of TROJAN tractor shovels.

Top Performers in Aviation



TROJAN

TROJAN®
TRACTOR SHOVELS
YALE & TOWNE

TROJAN TRACTOR SHOVELS ARE AVAILABLE IN 8 MODELS, LIFTING CAPACITIES FROM 6,000 TO 24,000 LBS.

THE **YALE & TOWNE** MANUFACTURING COMPANY

TROJAN DIVISION

• BATAVIA, NEW YORK

©YALE & TOWNE MFG. CO.

INTERNATIONAL OUTLOOK

BUSINESS WEEK

JUNE 18, 1960



The U.S. is having its best year for foreign trade since 1957.

With exports up and imports down, Washington expects to end the year with a trade surplus of about \$3.5-billion.

We'll still have an over-all deficit in the international balance of payments, of course; government spending and private investment overseas more than wipe out any trade surplus we could hope to build up. But the deficit will be down this year. Washington says it may go as low as \$2-billion; this compares with \$3.7-billion last year.

It looks now as though U.S. exports for the year will be close to \$19-billion—up roughly \$1-billion from earlier estimates—and imports \$15.5-billion or less, instead of the \$16-billion predicted earlier.

With the Federal Reserve Board moving toward an easier money policy, the trade surplus will be further offset by U.S. investors who are stepping up purchases of foreign securities, made relatively more attractive by lower interest rates at home.

It's too early to say that the balance of payments crisis is over. After two years, it is still a threat to U.S. foreign and even domestic economic policies. Cyclical business factors here and abroad may be responsible for much of the improvement.

The gain in U.S. exports can be attributed in large part to the boom in Europe. And foreign governments have reduced their restrictions against U.S. goods. But a European downswing could change the picture sharply. At the moment, though, the outlook for U.S. exports is brightening with further steps toward liberalization expected in Japan, Italy, and France.

The key thing to watch for in the continuing debate over foreign aid appropriations is not the amount of money appropriated but what happens to the strings tied to its use by the House Appropriations Committee. Strings could hurt the program more than skimping.

The House committee specifically forbade the Administration to participate in financing the \$1-billion 10-year program to harness the waters of the Indus River system for the use of 40-million Indians and Pakistanis. It also wrote restrictions into the foreign aid bill that would make it difficult or impossible to help the emerging nations of Africa.

By pulling out of the Indus Development program now, the U.S. would risk wrecking the World Bank-sponsored project after virtually having agreed to cooperate. Such a move would be comparable to the last minute U.S. withdrawal from the Aswan Dam project in Egypt—which permitted the Soviets to move in.

Restrictions on the use of already limited U.S. aid funds in Africa could have equally important consequences. The Soviet bloc is eager to give substantial economic assistance to Africa's new nations—to win their neutrality if not their friendship.

Fidel Castro has threatened to take over two U.S.-owned oil refineries in Cuba. Esso and Texaco, along with Shell, a British company, have refused to refine imported Russian crude (BW—Jun.11'60,p34). Castro appears to be holding off until he finds out how much refined product he can get from Russia and whether the Russians will build a refinery for Cuba.

If Castro moves against the oil companies, he faces a cut in Cuba's 157

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

JUNE 18, 1960

sugar quota and subsidy from the U.S. At midweek, the House Rules Committee postponed a vote to extend the Sugar Act, which leaves open the strong possibility of a bill giving the President the authority he's asked for to reduce the sugar quota in the "national interest."

Washington is betting that Castro will go through with his threat. Officials say he has gone too far in breaking ties with the U.S. to back down. Cuba also is moving into the Soviet economic orbit. This week, it signed a \$20-million economic aid pact with Czechoslovakia. This follows agreements with Russia and Poland. Similar arrangements with East Germany and possibly Communist China are in the offing.

Gen. de Gaulle is making a new attempt to wind up the five-year-old Algerian war. In doing so, he's running the risk of touching off another revolt against his Algerian policy. This happened last January when rebellious civil and military leaders successfully blocked de Gaulle's desire to begin talks with Algerian nationalist (FLN) leaders. Now, five months later, the general is again pushing for such talks.

In a speech at midweek, de Gaulle repeated his offer of last September to reach a cease-fire agreement with FLN, then hold free elections to decide Algeria's political future. But this time de Gaulle presented his policy in more conciliatory tones. He didn't, for example, repeat his earlier demand that FLN rebels surrender their arms to French units. De Gaulle spoke for the first time of "an Algeria for the Algerians," implying some sort of autonomous political status for Algeria.

De Gaulle's moderate approach will make it difficult for Algerian nationalists to turn him down out of hand. They were expected to respond promptly. At midweek, French reaction was mixed, with "French Algeria" politicians criticizing de Gaulle, most of the others for him, and Army leaders maintaining an ominous silence.

Meantime, the rush toward independence among France's former West African colonies has Paris officials on edge. It looks as though every former French African colony will be completely independent from France by year's end. When de Gaulle set up the so-called French Community, his idea was to have France's former colonies take over local affairs and leave foreign and defense matters to Paris. Only French Guinea voted for complete independence. Now the dozen-odd others have demanded full independence, the latest candidates being the Ivory Coast, Upper Volta, Dahomey, and the Niger.

Argentina is considering new oil exploration and development contracts for foreign oil companies. The new scheme would allow higher payments for crude, greater volume of production, and more widespread drilling operations. This is a switch from plans that called for the state-owned oil company to tighten contracts with foreign companies.

Argentina is eager to attract new oil investments from abroad. It is especially interested in pulling in the bigger U.S. companies, having found that last year's initial contracts with smaller companies are beneficial to the economy. Argentine Pres. Frondizi also hopes to entice British and West German companies and is now in Europe making his pitch.



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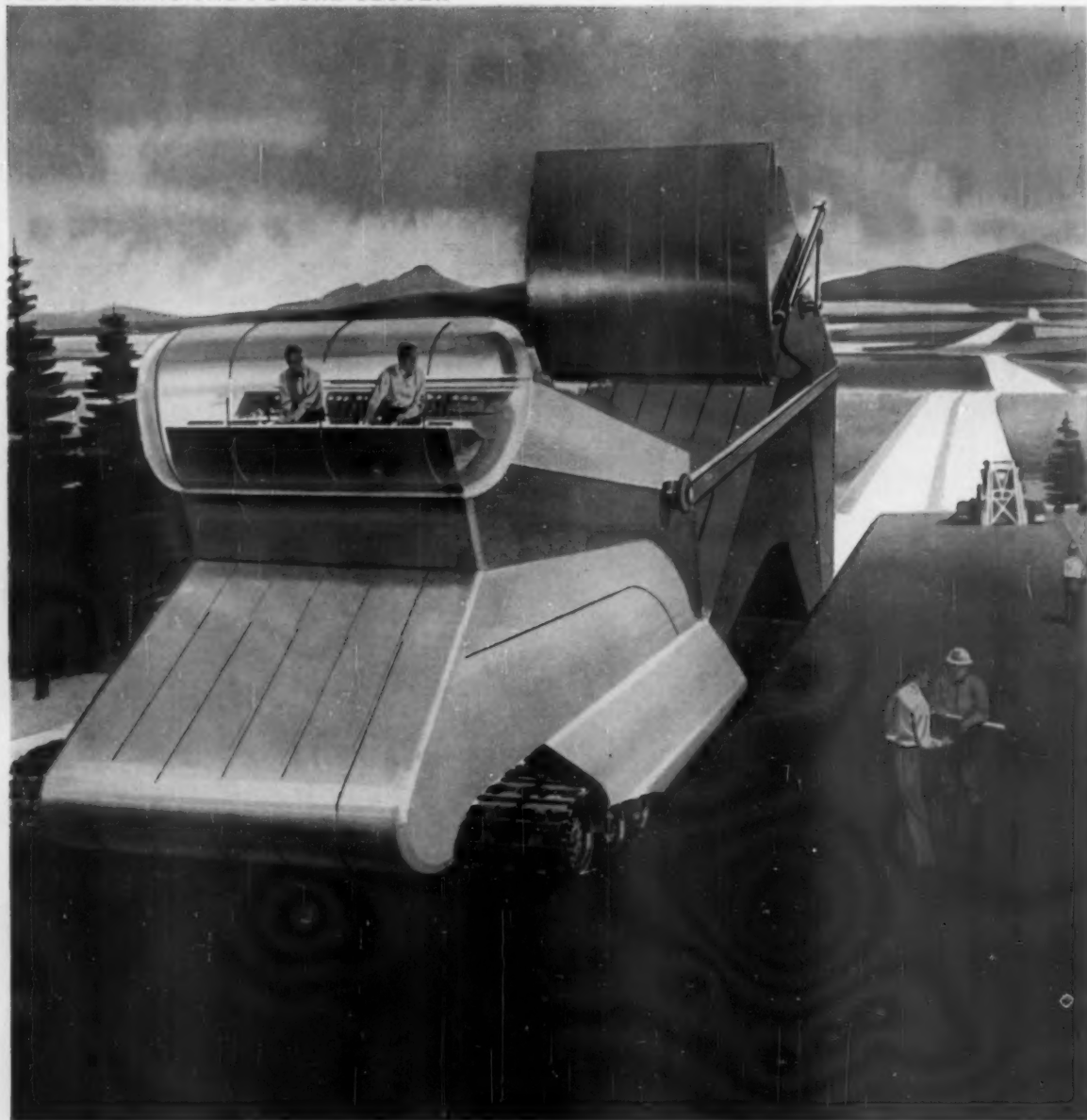
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THE MARKETS

Growth Shares Provide the Push

Heavy buying in this sector boosts averages, though as chart (right) shows, most other stock groups are down.

Wall Street this week was pausing for breath after one of the shortest and swiftest run-ups in years. After months of temporary rises and prolonged sinking spells, the averages suggested that the traditional summer rally was well under way.

Certainly it is clear that investors are not disenchanted with common stocks. After the Federal Reserve lowered the discount rate two weeks ago, they began buying in volume. A good many analysts, looking back over the market's performance since the turn of the year, say that there never was any disenchantment. They explain that the market has been experiencing massive shifts out of certain types of securities and into others.

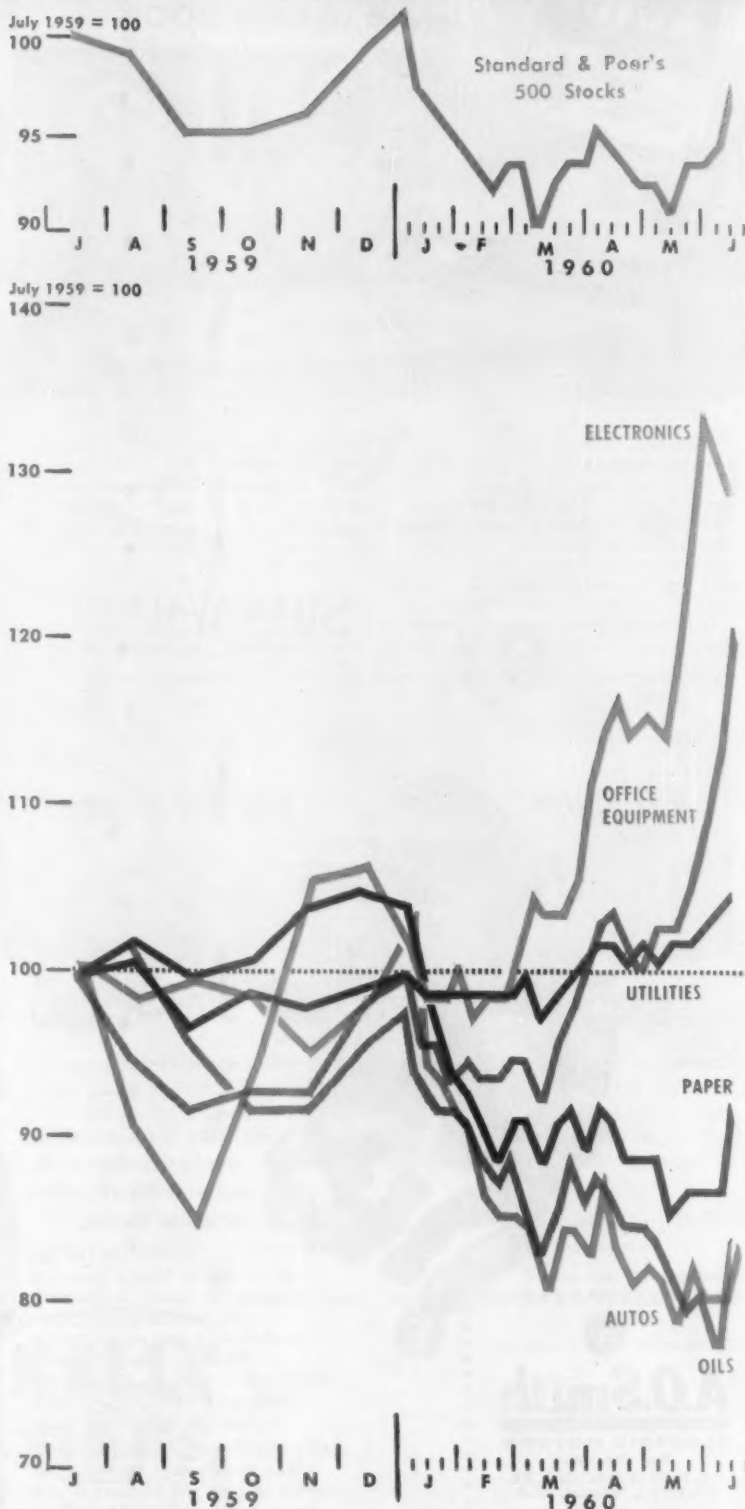
The single figure provided by the Dow-Jones industrial average, or even the broader Standard & Poor's 500 stock index, has failed to record this internal readjustment. It measures the activity of 30 issues which have, in the main, been moving down, although several have managed big increases. The market's general pattern has followed this kind of movement, but the significant thing has been that investors have focused their attention on stocks featuring rapid earnings growth. This has caused wide movements within the over-all market—and within groups—which the Dow stock average fails to measure.

• **Rolling Market**—Thus, Wall Street has had what amounts to a rolling market. Very few groups remained steady. According to one investment manager, "We always talk in terms of at least three markets—the industrials, rails, and utilities. Right now, though, it seems as if we have at least six markets."

There are actually more markets than that. Investors have been extremely selective, selling one group and buying another in what appears to be an illogical order. But analysts say that there is a logic, that investors are now buying "growth" and disdaining anything that seems to be standing still.

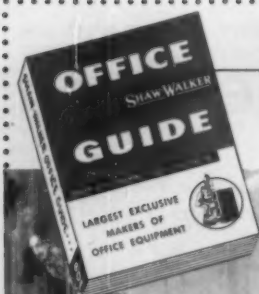
There has rarely been a time when the stocks making up the market have moved in so many directions. As the chart shows, there is a huge disparity between the groups that have been climbing and those declining, a disparity that has meant big gains and losses.

• **Mavericks**—Stock analysts point out



Data: Standard & Poor's Corp.

©BUSINESS WEEK 1



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the majority of stocks usually move together either up or down or sideways. But even in the broadest bull or bear markets, some stocks will run counter to the prevailing trend.

Over the last year, however, the market has been disintegrating into distinct groups whose movements have puzzled technicians. Dow theorists insist that a bear market is in progress because both the industrial and the rail averages have provided the appropriate signals (BW-Mar.19'60,p175). But many analysts say that the Dow no longer has validity because so many stocks have reached new peaks.

It is not like 1930, where one or two special situations resisted the decline. Today a considerable number of groups have staged big rises, while another sizable number have suffered big declines. As one analyst puts it, "If you picked the right stocks, you could have done better now than in the bull market, but if you picked the wrong ones you could have lost your shirt."

• **Utilities Firm**—The utilities have managed to resist any down trend. Some investors turn to utility stocks whenever the market looks weak, counting on their defensive characteristics. In this view, the remarkably steady growth in the use of electric power, and the high payout that utilities normally provide, make them stable buys when the prospects for industrial shares are in doubt.

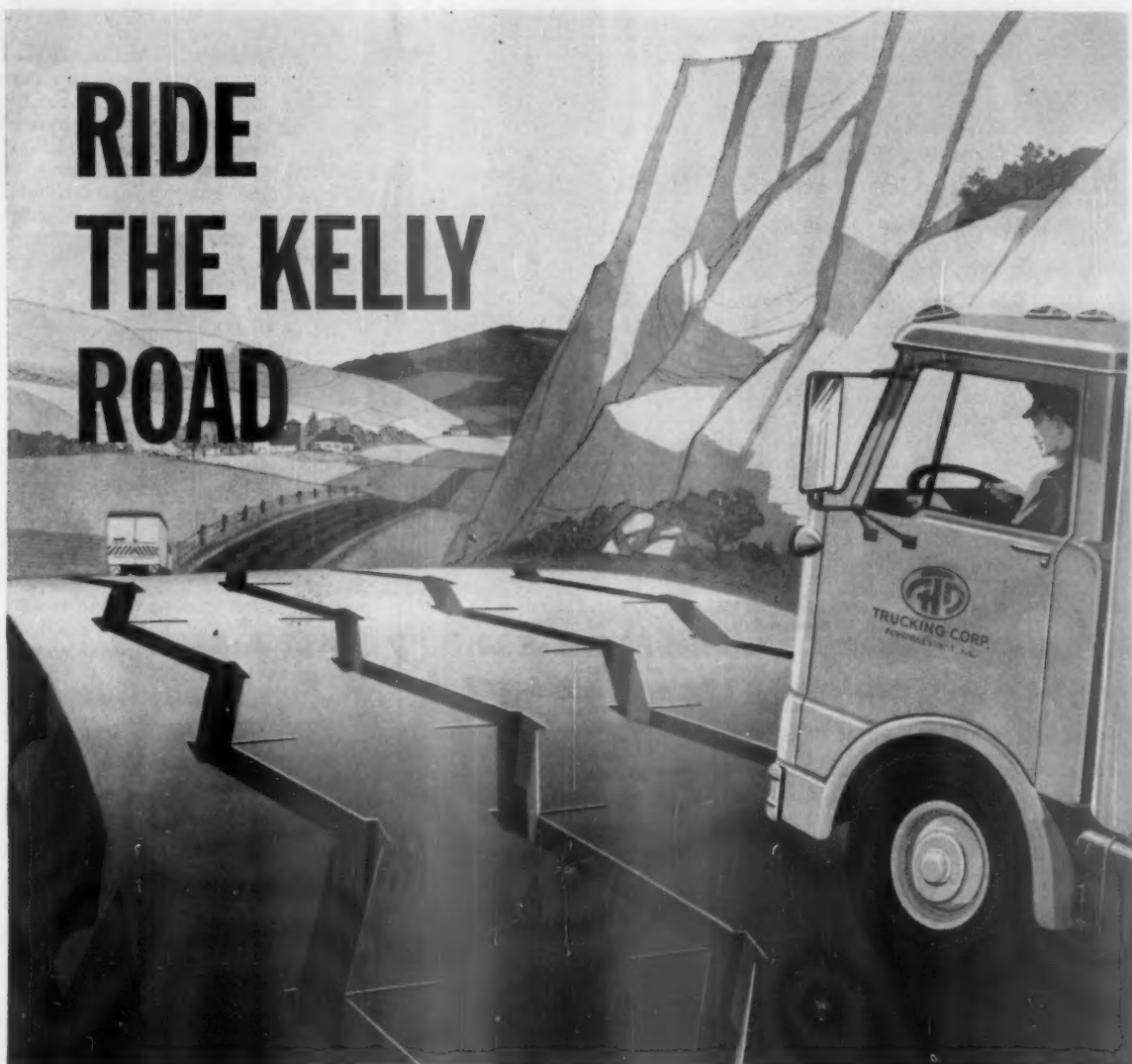
There is another reason for the good showing of the utility stocks. Many investors are turning to those with growth characteristics (BW-Jan.17'59, p107). These companies have increased their share earnings at a rate considerably faster than most industrial companies, and they have proved remarkably resistant to recessions. Mostly these growth utilities are in areas where industrial and residential building is rapid, where a slowdown in manufacturing production is unlikely to have much impact.

In a sense, there are two utilities markets: the defensive group and the growth group. Both have gone up in price when other issues have been declining, but the growth group has risen much further. That's because there are fewer issues in this category, and therefore the demand for them is concentrated.

• **Other Favorites**—The accent on growth has been the moving force behind the rise in other stocks, notably in electronics, in leisure—bowling, boating, entertainment—in publishing, and in office equipment. Companies in these groups have not only resisted recessions but have generally had very sharp year-to-year increases in their earnings.

Some analysts are using the concept of a rapid rate of growth in earnings to

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promote the buying of stocks, tossing aside the traditional technical yardsticks, such as yield and price-earnings ratios. They put their entire emphasis on projecting future earnings per share, and argue that a stock able to compound its growth at a high rate merits a price-earnings ratio regarded as abnormal by orthodox technicians.

Thus, some growth-school analysts profess to see nothing wrong with stocks selling at 50 or more times earnings, provided that future earnings growth will be much greater than average. For the most part, analysts look for stocks that have already shown a fast growth rate, such as International Business Machines, Polaroid, and Texas Instruments, or those holding promise of establishing growth in per share earnings of 20% a year or better.

• **Selling Off**—Investors have been selling cyclical issues—autos, and steels—to pile into these growth stocks. They also have been selling a former growth group, the oils, whose earnings have slowed down considerably. And because the fastest growing growth stocks are already selling at high prices, there have been a rush for new and unseasoned issues.

Most of these issues are in the electronics field, particularly in such specialty areas as transistors, infra-red, and cryogenics. Brokers warn that while some of these companies will undoubtedly grow at a very fast rate, others will fall by the wayside. But investors appear to be entranced with the growth concept just as they were earlier drawn to the cult of common stocks.

The wholesale abandonment of the slow growing issues, or those whose earnings are in temporary eclipse, has hurt the bulk of stocks. By the same token, there has been a bandwagon rush for the fast growing issues, including a lot of companies whose growth is not yet established. As a result, price-earnings ratios range all over the lot, from less than 10 times prospective 1960 earnings for many steels to almost 100 times earnings for some of the most glamorous electronics issues.

• **Durable**—This wide spread is unusual, and has never before lasted for so long. But there is as yet no sign that the demand for growth is over. Since the Federal Reserve lowered the discount rate those stocks that were doing poorly moved up somewhat; the growth issues remained at high levels.

Many analysts think that the growth stocks will settle down in time, but they do not fear a big break. As one summed it up this week, "The good ones should continue in favor, but investors won't go buying the untested ones indefinitely. They'll turn back to stocks that are undervalued rather than putting their money on those that are overvalued." **END**



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Insist on  Steel Pipe

Wall St. Talks . . .

. . . about further Fed easing of credit, drug stocks, Pru loan to Japanese steel at 7%.

Bankers say the Federal Reserve's next move to ease credit could come just before the July 4 weekend—either by eliminating the differential in reserve requirements between the central reserve cities of New York and Chicago and the other reserve cities or else by increasing the amount of vault cash that banks can count as part of required reserves. Washington officials say that, if reserves are going to be increased, "it would be logical" to do so when there's a seasonal bulge in credit demand, as on the 4th or possibly over Labor Day.

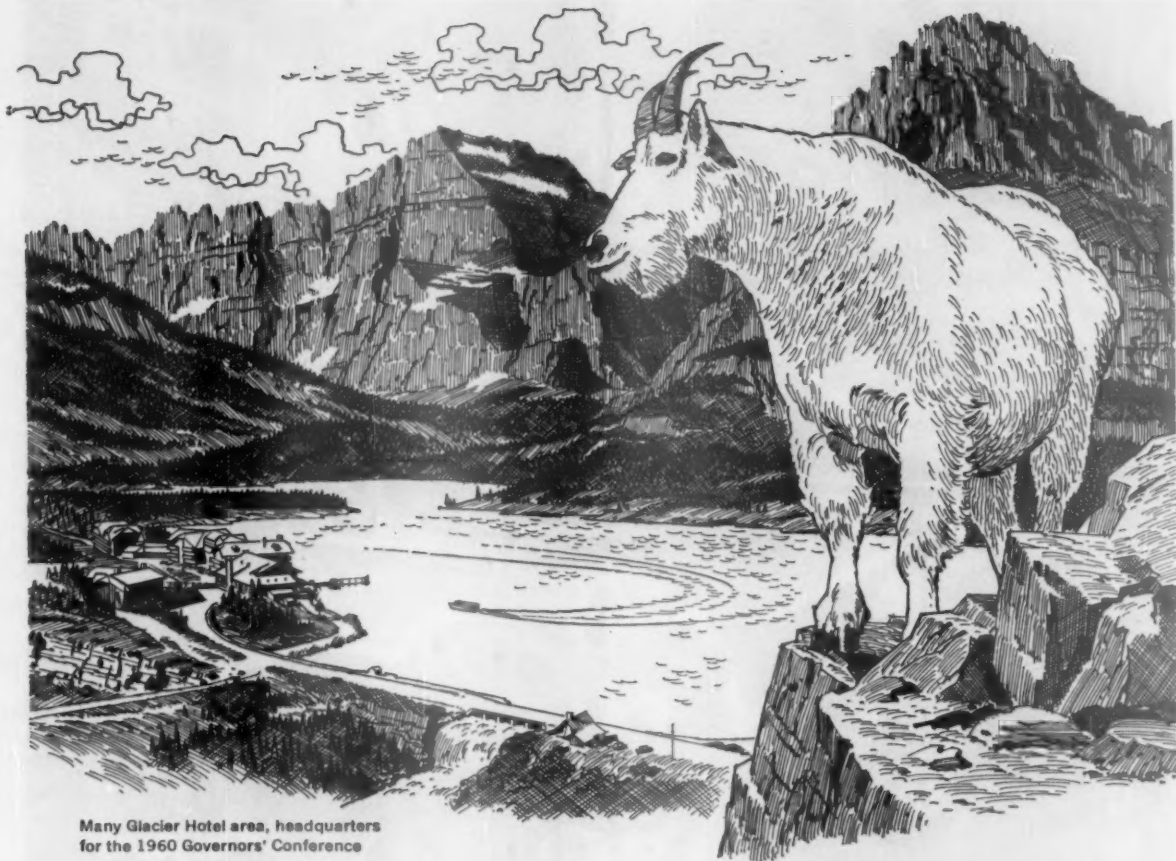
There were a few lifted eyebrows this week when Prudential Insurance Co. approved a \$30-million loan to Japan's Kobe Steel Works, in the wake of the violent anti-American riots in Tokyo. But bankers note that the loan bears 7% interest and has been guaranteed by five of Japan's largest commercial banks.

Carter Products, maker of drugs, could suffer, stock analysts say, because of Hoffmann-La Roche's introduction of Librium, a new tranquilizer. One of Carter's big money-makers is Miltown, and success of Librium could cut into Carter's earnings. The stock is trading at \$72, off from its 1960 high of \$78.

Another bit of investment advice in the drug field seems to have gone awry—at least for the moment. Argus Research cautioned its clients about buying Mead Johnson at \$104, because it felt public acceptance of Metrecal, a new dietary supplement, would peak out next year. Mead Johnson this week hit \$116.

There's talk that St. Regis Paper Co. would like to merge with Canada's Consolidated Paper—a rumor that St. Regis flatly denies. St. Regis already holds about 13% of Consolidated's outstanding stock—as a result of the sale of St. Regis plants in Canada to Consolidated.

Bowl-Mor Co., Inc., bounced from 16 to 28 this week on word that the American Bowling Congress may soon approve the company's new automatic tenpin-setter. Up to now, the company, which wants to crack the tenpin-setter market dominated by Brunswick and AMF, has been confined to setters for duck and candle pins, a small market largely confined to the Northeast.



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will be host in June to governors of the 50 states
who will meet for their annual conference.

This is an especially happy occasion for Great
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in the establishment of Glacier National Park.
Through these 50 years we have been host to
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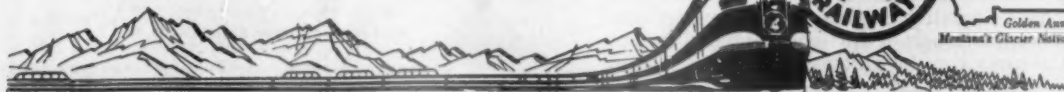
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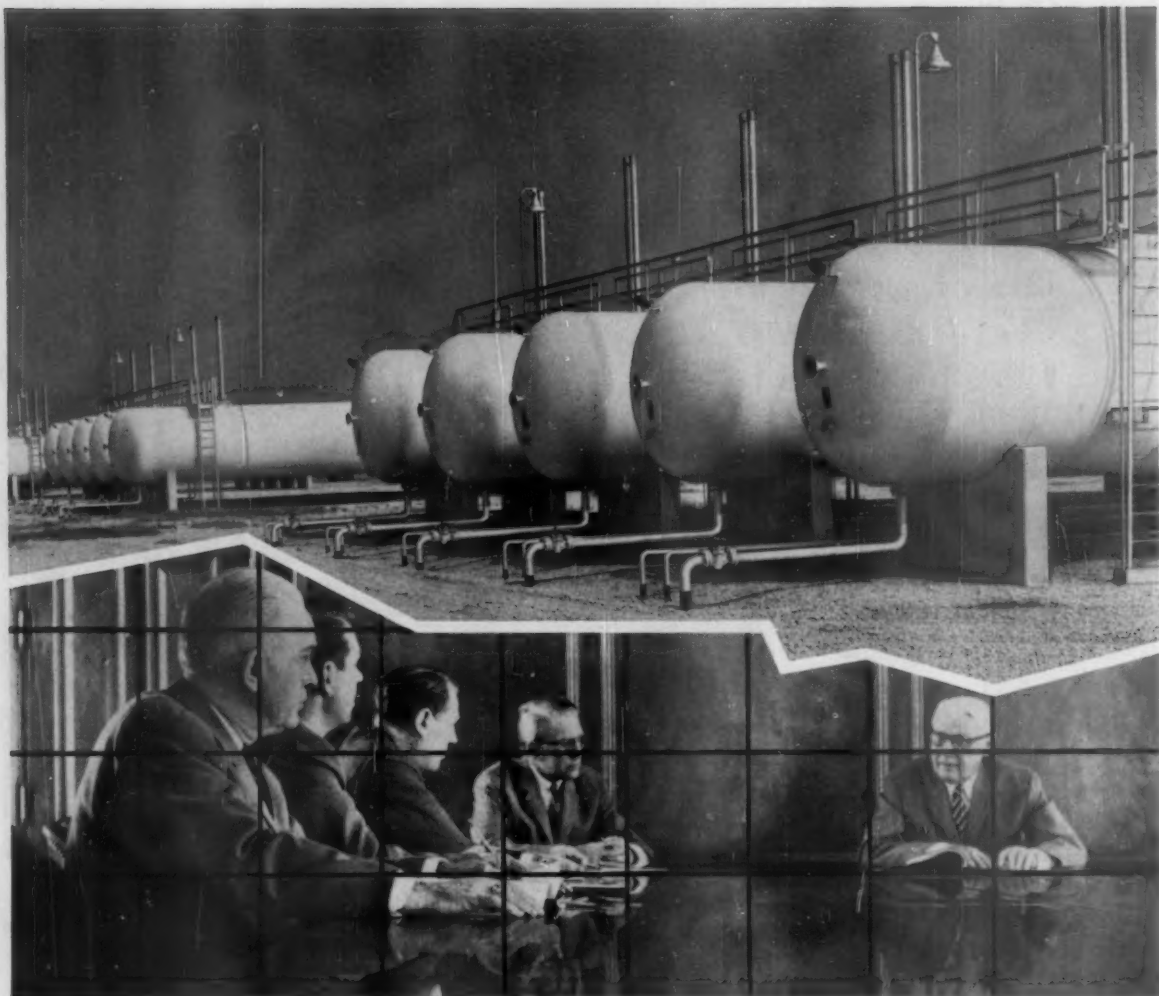
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accommodations, costs and travel arrangements, write: P. G. HOLMES,
Passenger Traffic Manager, Great Northern Railway, St. Paul 1, Minn.



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In the Markets

• • •

Burst of Institutional Buying Boosts

Prices of Bonds Throughout the Market

The bond market took heart this week as institutional investors finally came into the market in force. The renewed buying interest was evident in all sectors of the market:

Government bond prices rose steadily. At midweek, they were at least a full point above the level of a week ago. Moreover, the Treasury's advance refunding offer (page 129), given a cold shoulder by investors at first, ended up better than Washington officials had hoped. A whopping total of \$4.9-billion was swapped, all but \$300-million for the 3¾% 4-year note, rather than the longer 3% bond, which admittedly was "underpriced" for the current market.

In the corporate bond market, new issues were moving well—in spite of sharp bidding by competing underwriters and prices that were, according to several dealers, on the "rich side." Consolidated Edison Co. of New York—rated Aa by Moody's Investors Service—sold a \$50-million issue, non-callable for five years, at a yield of 4.70%. The morning after the offering was made, the bonds were 70% to 75% sold, in part because of heavy buying from California state investment funds. By contrast the Aaa Northwestern Bell Telephone issue with a 4.80% coupon—callable at any time—was still stuck in syndicate this week. Traders note that investors are still willing to pay a premium for the no-call feature, even with a decline in rates.

Tax-exempt municipal bonds didn't react so sharply to the improved market outlook. Nevertheless, there was "an excellent tone" to municipal trading, say dealers, with "prices very firm."

Dealers feel that the most significant aspect of the current rally in bonds is that it has been sparked by genuine investment demand, not by speculative trading. This leads bond men to predict that the rally in prices—and the drop in yields—should continue for some time.

• • •

Brokerage Clerks and Confederates

Charged in \$250,000 Securities Theft

Another major embezzlement scandal broke on Wall Street this week. Five men, including two \$65-a-week clerks in the back office of Bache & Co., were arrested and charged with grand larceny in the theft of \$250,000 worth of securities.

This is how New York District Attorney Frank S. Hogan explained the operation: A stock transfer clerk would ship out stock purchased by Bache customers to the transfer agent with instructions to register the shares in a fictitious name, instead of in Bache & Co.'s name. When the stock was returned, the clerk would intercept the shares and pass them on to his confederates, who sold them through normal Wall Street channels.

There are two versions of how the theft happened to be uncovered: Bache says a routine internal audit turned up the shortage. Hogan's office, on the other hand, implies that coincidence played a big role. One of the firm's customers called up and asked for physical delivery of some securities. As it turned out, they had been stolen, sold under a false name, and then by the purest coincidence repurchased by another Bache customer. In the process of tracing how the securities got into the wrong account, Hogan says, the theft was uncovered.

Bache—obviously red-faced at the disclosures—said that the theft "in no way affects customers' accounts and is fully covered by insurance."

• • •

Nervousness Over Congo Independence

Disturbs Commodities Such as Copper

Reports of unrest in the Belgian Congo—two weeks away from independence—are sending shivers into the commodities markets. The Congo is one of the world's biggest raw materials centers, and any disruption of production or shipments there or in neighboring Rhodesia could cause serious repercussions.

Hit hardest so far has been trading in copper futures. Prices are gyrating on the sensitive London Metal Exchange, and on the New York Commodity Exchange trading volume in copper futures rose to an all-time high on Tuesday of this week. If the London price falls below 30¢ a lb.—a level it has just about reached—U.S. producers might be forced to lower their price of 33¢ a lb.

• • •

The Markets Briefs

Investment company assets will reach \$100-billion by 1980, according to Arthur Wiesenberger & Co., drum-beater for the mutual fund industry. Wiesenberger, in the 20th edition of the \$17.5-billion industry's bible, Investment Companies, says one factor promising growth is the prospect of legislation such as the Keogh bill, which would permit self-employed persons to build up retirement funds for themselves through tax-deferred contributions from annual income.

J. B. Coburn Associates, New York underwriters of a \$300,000 **Federated Electronics, Inc.**, stock issue that has received Wall Street attention, says it is not yet accepting indications of interest in the stock. Thus, the firm adds, contrary to brokers' impressions (BW—Jun. 11'60, p150), the stock is not oversubscribed. Coburn expects the issue to be marketed in several weeks.

The public demand for growth shares (page 161) has been a boon to Johnston Mutual Fund, a small \$13.9-million "no-load" fund, which has just completed a drastic shift from income shares to growth in its investment program. The result: On June 15, Johnston had a net asset value per share of \$13.30, the highest on record; moreover, it was one of the few mutual funds actually to show an increase in net asset value since the beginning of the year.



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STUART SYMINGTON



Edward C. Welsh



Leon Keyserling



NELSON ROCKEFELLER

For the 1960 Candidate, a Camp

"Via ovicapitis dura est," said Adlai Stevenson sadly after his second defeat: The way of the egghead is hard. But the entree of the egghead into political circles today is not hard at all, as the pictures abundantly prove; in fact, the way is often paved with engraved invitations.

It is no accident that the front-running candidates of each party, Sen. John F. Kennedy and Vice-Pres. Richard Nixon, are among the politicians who call most frequently on the academicians for advice, if not consent.

Both are practiced exploiters of the best intellects in the country.

Buffeted by the increasing complexity of the issues and the range of subjects a candidate must be versed in, they have found it necessary to turn more and more for the "deep think" to the men who have the time to think.

• **Too Much for One Brain**—A candidate today must be ready to talk



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Wallace K. Harrison



John E. Lockwood

In his two campaigns, Stevenson drew enthusiastic support from the intellectuals. J. Kenneth Galbraith, Arthur M. Schlesinger, Jr., W. W. Rostow, and Seymour Harris, of Harvard, and former Air Force Secy. Thomas K. Finletter all helped him with ideas and speeches. Since 1956, with no call to help Stevenson actively, this group has migrated more and more to Kennedy. But he still talks with these people frequently.

of Eggheads Is a Must

thoughtfully and convincingly, perhaps in a nationwide TV interview, on economic growth, taxes, missiles, Quemoy, the summit, lunch counter sitdowns, automation, education, or water pollution.

No one man can possibly research or assimilate all these subjects without

continuing help. While he must digest ideas on all these subjects himself, the smorgasbord of thought and information on which he feeds must be laid out to a large extent by the professional thinkers.

• **Crucial Ideas**—A modern Presidential campaign, dragged out for months as

it is, is a greedy consumer of ideas and expressions. There is no telling when the coterie of thinkers around a candidate will come up with an idea that may turn out to be crucial. The brainstorm of Eisenhower's speech writer, Emmet Hughes—"I will go to Korea"—had an immeasurable impact on the

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1952 campaign. So, for good or bad, did Stevenson's "Ban the H-bomb" in 1956. Part of Gov. Nelson Rockefeller's appeal is the spirit of dynamic thinking that has infused his public pronouncements.

The final positions a candidate will take may still be decided by the political strategists and public relations men around him, and, of course, rest finally with the candidate himself. But the ferment of ideas is coming from the egghead circles. Hardly at any time since the early days of the New Deal has the intellectual been so courted in political life.

• **Varied Approaches**—The different candidates do not always stick to men of their own party. A leading academic personality may find himself called upon for ideas by several candidates, and often lends assistance without thought of seeking personal position or even voting for the candidate. Some of Kennedy's advisers, for instance, are never publicly identified as such because they are also paid consultants from time to time to the Eisenhower Administration.

The approach of the different office seekers to the intellectuals they want to draw to their own camp varies considerably. Here is the way the avowed—and unavowed—candidates are doing it, and the men they rely on.

Kennedy

Kennedy is the master cultivator of the intellectual. He works the academic vineyards assiduously, deliberately, and systematically. His range of intellectual advisers, while centered in the Harvard-Massachusetts Institute of Technology faculties, reaches into top academic ranks from coast to coast and on both sides of the political fence. He does not hesitate to call upon a Republican professor if he comes across an idea that appeals to him.

No candidate has developed the commencement circuit as highly as Kennedy, whose speeches, sprinkled with quotations from the philosophers and the political theorists, are much in demand at graduation time. All this has paid off not only in making use of the best thinkers, but in winning the political support of academic figures.

• **Impersonal**—Kennedy's way of dealing with the professors is quite impersonal. Most of them he never sees. If he needs advice on conservation or Latin American development, a letter or phone call may go out to the expert, asking if he would "be so kind" as to submit a memo or "position paper."

The resulting ideas may be incorporated into a speech, and then a nice "thank you" letter goes into the mail. None of his advisers is paid. "They all get free copies of his books," says an

aide; and there may be a Christmas present besides for the most consistent advisers.

• **Inner Brains Trust**—Kennedy does meet and talk occasionally, however, with the "Cambridge group"—the Harvard and MIT faculty members who serve as his inner brains trust. It is often on their recommendations that he will seek advice from University of Chicago or West Coast professors.

"Coordinator" of the Cambridge group, the egghead-in-chief, is youthful Harvard law professor Archibald Cox, one-time chairman of the Wage Stabilization Board under Pres. Truman and more recently Kennedy's chief consultant on labor legislation. Deputy coordinator is Harvard law professor Abram Chayes, who advises on civil rights along with Harvard's Paul Freund and Mark De Wolfe Howe.

Others in the inner circle are J. Kenneth Galbraith of Harvard, author of *The Affluent Society*, who advocates more public and less private spending; Robert Wood of MIT, an authority on urban problems; W. W. Rostow and Max Millikan, MIT economists and experts on underdeveloped countries; and economists Paul Samuelson of MIT, James Tobin of Yale, and Francis Bator of Harvard. Rep. Chester Bowles, former governor of Connecticut and former ambassador to India, is a chief adviser on foreign policy.

• **Local Talent**—Wilbur Cohen, University of Michigan professor and former director of research of the Social Security Administration, advises him on social security; E. Z. Palmer of the University of Nebraska on Midwestern economic problems. When Kennedy moves into a state for a primary contest, he makes the best use of college faculties in the state on local or regional problems.

Kennedy also hires intellectuals on his personal staff. Ted Sorenson, his 32-year-old right-hand man, can dictate a speech in Kennedy's own idiom that reads like a Kennedy manuscript.

While Kennedy's cultivation of the academic world is calculated, it is by no means an affectation. He has a scholarly mind, is an avaricious reader, and is at home with academic people.

Nixon

Nixon operates in quite a different way. His coterie of intellectuals is considerably smaller, but more personal. Nixon is an incessant brainpicker. Around the Senate cloakrooms, with people he sees in his office, in discussions during his travels, he is constantly drawing out ideas, arguments, recommendations for speeches, or estimates of public opinion.

But the ones on whom he relies consistently for the pros and cons of issues

—as distinct from political strategy—are a handful of academic types who are not all Republicans and not necessarily even committed to vote for him.

Nixon, of course, does not have to create his own coterie of experts in the same way Kennedy does. The Vice-President has ready access through his official position to all the experts in the State Dept., the National Security Council, and other Administration agencies.

• **Roster of Advisers**—Outside of official circles (including his most constant friend and adviser, Atty. Gen. William P. Rogers), the Vice-President's confidants are few. On economic policy he talks often with Dr. Arthur F. Burns, former chairman of the President's Council of Economic Advisers; to a lesser extent with the present chairman, Raymond J. Saulnier; and often with W. Allen Wallis, Dean of the University of Chicago's Business School and now staff chief of Nixon's Cabinet Committee on Price Stability for Economic Growth. All three reflect his own approach to economics.

Nixon often hassles over foreign policy with Harvard professor of government William Y. Elliott, a Democrat, or Philip Watts, Washington investment broker and former policy planner in the State Dept. Lon L. Fuller, Harvard law professor who once taught Nixon at Duke University, is a frequent conferee. So is the Rev. John Cronin, former philosophy teacher now at the National Catholic Welfare Conference.

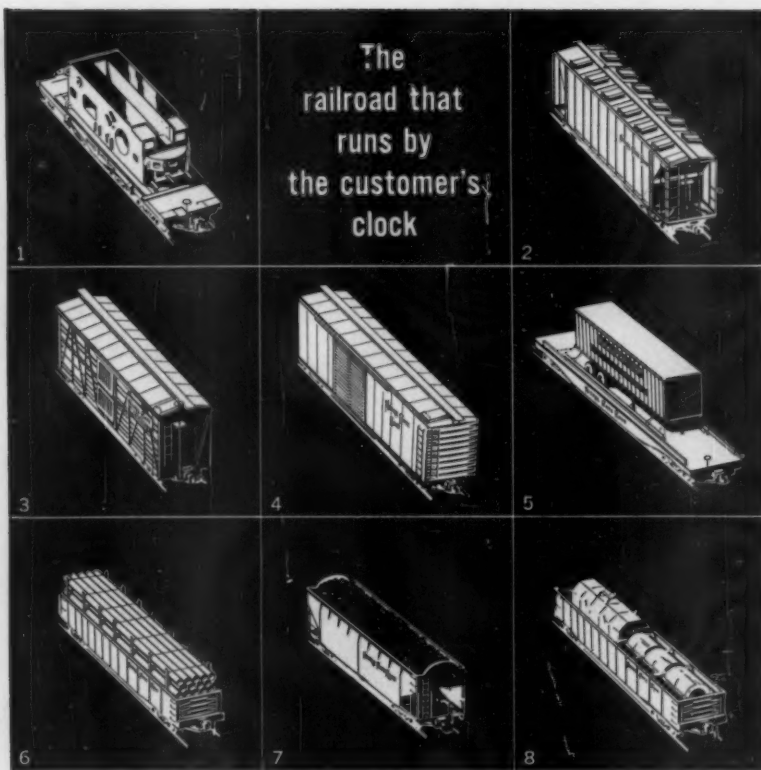
• **Center Spot**—In recent months Nixon has used James Shepley, on leave as Time-Life, Inc.'s chief of domestic bureaus, as his principal speech writer and coordinator of research. While Shepley is not an "intellectual" in the more cloistered meaning of the term, it is more and more through him that ideas filter to Nixon as campaign pressures increase.

Johnson

Sen. Lyndon Johnson is by no means an "intellectual," and admits he almost never reads a book. Yet he leans upon intellectuals more than most people would imagine. In political matters, his advisers and aides are veteran political pros on the conservative side. But in "matters of the mind," he banks upon people identified with the liberal wing of the Democratic Party.

They include Former Secy. of State Dean Acheson, his closest adviser on foreign policy; New Deal brain truster Benjamin Cohen; and Abe Fortas, Roosevelt's Under Secretary of the Interior and now a Washington attorney with the firm of Arnold, Fortas & Porter.

For economic policy, Johnson turns

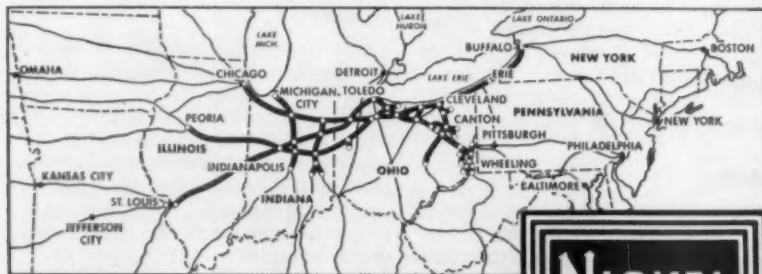


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to Eliot Janeway of Janeway's Memorandum Service, and the former Securities & Exchange Commission chairman, Donald C. Cook of New York. On his personal staff is a Harvard Business School professor on leave, Gerald W. Siegel, a constant adviser to the Majority Leader. Edwin L. Weisl, a lawyer, is special consultant to Johnson's Preparedness Subcommittee of the Senate Armed Services Committee.

• **Specific Answers**—Yet while he often talks with these advisers, Johnson is usually in search of pragmatic answers to specific problems, not long-range thinking. Acheson's advice is more likely to come in a memo sent to Johnson at Acheson's own initiative.

Johnson does not cultivate the university crowd. One of the few professors he favors is Walter Prescott Webb, University of Texas expert on such Western problems as water resources. Johnson, in his position as Senate Majority Leader, is not expected to come up with plans and programs. He considers himself more a compromiser of the programs of others.

Stevenson

Adlai Stevenson has had a wider and more enthusiastic following among the intellectuals than any other Presidential contender. During his two campaigns they flocked from the campuses to campaign headquarters with proffers of help and advice. More recently, with no call to help Stevenson actively, they have been offering their services more and more to Kennedy. Stevenson still has continuing contact and support among them, however.

Symington

Sen. Stuart Symington has less to do with the academic crowd than any other candidate, although his staff assistant Edward C. Welsh, one-time economics professor, is regarded as one of the "best eggheads" on any Senatorial staff. Symington's background and interests are largely business and defense. He does consult frequently on foreign policy with Dean Acheson. And he likes to talk over economic ideas with Leon H. Keyserling, Truman's liberal chairman of the Council of Economic Advisers.

Symington's friends made an effort to get a kind of eggheads-for-Symington movement going, but found the reception on the campuses rather lukewarm.

Rockefeller

Gov. Nelson Rockefeller's method is to sit down with a few intimate associates and bounce his own ideas off them. He is more a committeeman of ideas than a sifter or brain picker. When



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he needed help on conservation problems, for instance, he asked his brother Laurance, long involved in conservation, to name a few men who could help. He called a meeting of the group, listened to their ideas, and selected a half dozen whose thinking most closely paralleled his own to help him prepare a program.

Before he became governor he initiated the "Rockefeller Reports" on national goals in defense, foreign policy, education, and economic growth, and presided personally over panels of experts that included the biggest names in the country, both Republican and Democrat. In the Rockefeller family itself, with all the enterprises of its members, he has a wealth of expertise. Laurance is knowledgeable in Caribbean problems, David on Africa and Europe, John D. III on Asian affairs, and Winthrop on low-cost housing. The brothers meet about once a month to talk things over.

- **Trio**—Outside the family, a trio of men are probably closest to the governor in his daily thinking on national and international problems. They are Emmet J. Hughes, Wallace K. Harrison, and John E. Lockwood.

Hughes, a former Time-Life director of foreign correspondents, was speech writer for Eisenhower, but broke with the President and wrote a book attacking what he considered lack of leadership in foreign policy. He is now Rockefeller's chief speech writer and research director.

Rockefeller's friendship with Harrison, architect who designed Rockefeller Center and the U.N. building, and Lockwood, one-time law clerk to Justice Oliver Wendell Holmes, dates from the days when all three worked together in Washington; that was when Rockefeller was Coordinator of Inter-American Affairs. It is with these three that the governor best likes to bat around ideas, and aides say their influence on his thinking is enormous.

- **Practical Thinkers**—Through the Rockefeller enterprises he has access to a large supply of experts such as economist Stacy May, or labor expert Victor Borella, a vice-president of Rockefeller Center.

Rockefeller's counselors, it is fair to say, are the practical thinkers rather than the more cloistered intellectuals. His personal contacts with the academic world are limited. One on whom he does rely a great deal for advice on defense and foreign policy is Henry A. Kissinger, who has been critical of the Administration for "inadequate" defense spending and emphasis on big weapons to the neglect of small-war capabilities.

One aide notes that among all the people Rockefeller consults, "there isn't a conservative in the lot."

In Washington

. . .

High Court Rules on Three Gift Cases

But Has No Single, Clear-Cut Test

The U.S. Supreme Court this week unloaded its largest bundle of decisions delivered at one time during the current term. It still faces at least two more big decision days before it can close for the summer.

In a series of three decisions on the problem of how to distinguish gifts from taxable income, the court disappointed those who had hoped for a clear-cut rule to apply in all future cases.

Government tax lawyers—defeated in two of the three test cases in lower courts—had urged the court to adopt a new "apparently simple and precise test." The court says it is just impossible to do this.

Splitting up several ways in the three cases, the court ruled that:

Strike benefits paid by the United Auto Workers to a non-member striker were a gift and could be excluded from taxable income. However, the decision is limited to the particular facts involved in the UAW strike at Kohler Co. in Wisconsin. The court specifically refused to say that all union strike benefit payments are nontaxable.

A Cadillac automobile given by a businessman to a business friend in appreciation of favors was actually not a gift for income tax purposes. The court said it could not say the tax court was clearly erroneous in concluding that this particular Cadillac "was at bottom a recompense for past services" and hence taxable income.

A "gratuity" of \$20,000 paid by Trinity Church of New York City to its retiring comptroller must be reconsidered by the lower courts, because the trial court did not make findings necessary to support its conclusion that this was a gift and not taxable income.

In other cases, the court also:

- Reversed the conviction of George B. Parr, Texas politician, for mail fraud. After unsuccessful attempts by the state of Texas, the federal government in 1957 finally convicted Parr, eight other individuals, and two Texas banks on charges of embezzlement of school funds.

- Refused to review a New Jersey Supreme Court ruling, holding that the state's antidiscrimination law in housing forbids refusals to sell federally insured homes to Negroes. The Supreme Court merely dismissed the appeal by Levitt & Sons, Inc., in the case, for lack of substantial federal question.

. . .

Lobbying Costs a Tax-Free Expense

Under Bill Cleared by House Group

Into the end-of-session legislative logjam the House Ways & Means Committee has tossed a bill to permit lobbying expenses, including advertising, to be treated as business expenses for tax purposes.

The measure would overturn Treasury and court rulings limiting the practice.

Businessmen, along with members of labor unions and trade associations, would be allowed to deduct from gross income the costs of influencing actions by Congress, state, or other legislatures or voters in referendum-type situations.

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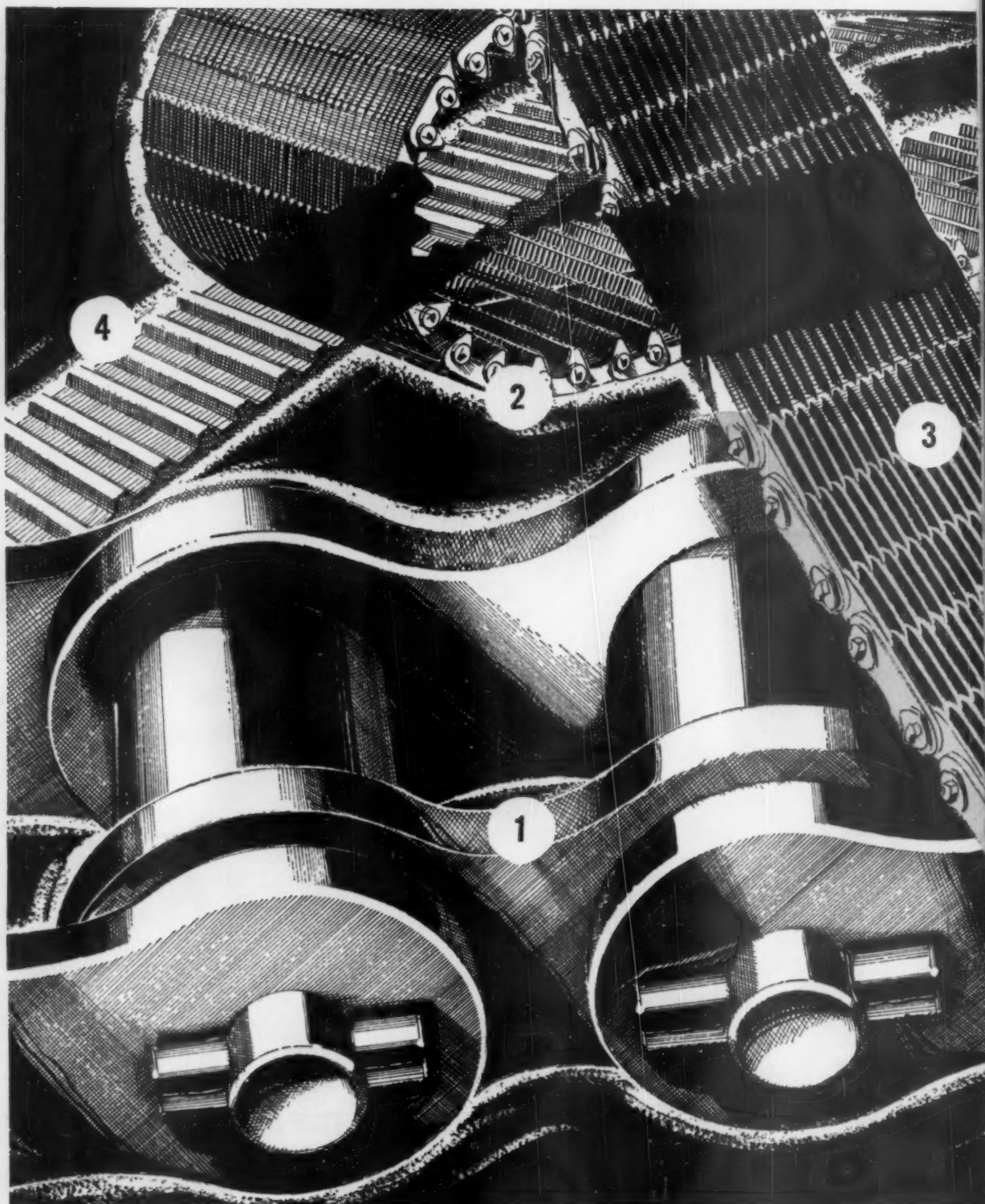
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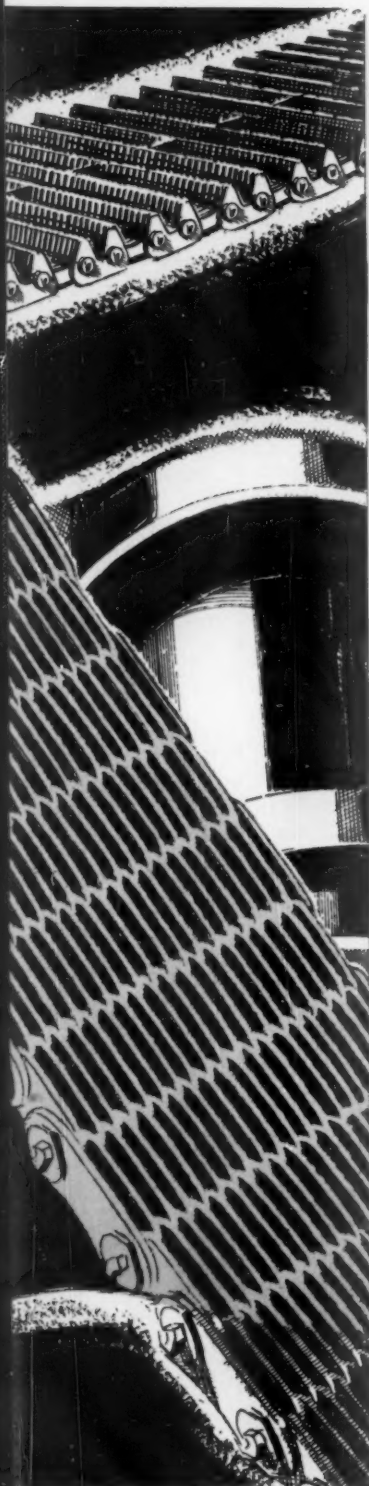
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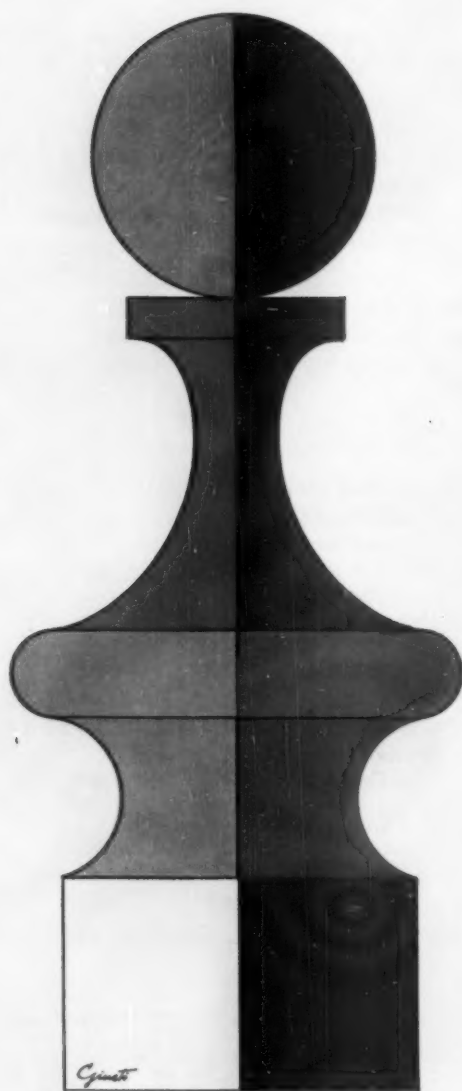
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PERSONAL BUSINESS

BUSINESS WEEK
JUNE 18, 1960



The extra-heavy crush of summer travel to Europe this year (BW—Jun. 11'60,p155) is one reason why a surprising number of top-rated resorts on this side of the Atlantic are still far from "booked solid."

A Business Week survey of 45 leading resort hotels in the U.S. and Canada revealed that all but a handful have space in the hot weather dates, in most cases from about June 20 through Sept. 15. Here's a rundown:

Taking Canada first, and moving from east to west, you'll find the Digby Pines Hotel in Nova Scotia cool, comfortable, and informal; with golf and a heated swimming pool by the sea. The Chalet Cochand (Ste. Marguerite Sta., Quebec) has a Swiss mountain atmosphere and features horseback riding; spacious and modern. High in the Laurentians, Mont Tremblant Lodge is only 90 miles northwest of Montreal; informal.

Going further west, the Banff Springs Hotel in Alberta will give you luxury, mountain scenery, 18 holes of golf, and a rather formal atmosphere in the evening. Close by, the Chateau Lake Louise (Lake Louise, Alberta) has even more spectacular vistas and excellent accommodations; after-dark activities somewhat formal. On the Pacific side, a top attraction is the Harrison Hot Springs Hotel in British Columbia; nine holes of golf.

In New England, the Newagen Inn (Boothbay Harbor, Me.) has a rocky oceanfront "lobster" atmosphere; cottages are outstanding. For a switch to ultra-modern, you might try The Colony (Kennebunkport, Me.); golf and swimming. Black Point Inn (Prout's Neck, Me.) in the Portland area, has a salt water pool, music with dinner and a friendly "inn" atmosphere. In the Moosehead Lake section, there is Mt. Kineo Hotel (Kineo, Me.)—complete lake sports, golf, and incidentally, pollen-free air.

The Forest Hills Hotel (Franconia, N. H.), in a mountain setting, is a good place for golfers and for the kids. So is The Waumbek (Jefferson, N. H.), which also features tennis and mountain hiking. Mountain View House (Whitefield, N. H.) is as good as any mountain resort in the country. Wentworth-by-the-Sea (Portsmouth, N. H.) has comfort, superior dining.

The Lodge at Smugglers' Notch (Stowe, Vt.) is a sophisticated mountain spot in summertime, with a heated swimming pool and private stable. On Lake Champlain, the Basin Harbor Club (Vergennes, Vt.) has about everything of interest to youngsters, plus golf. There is also an 18-hole course attached to the Lake Morey Inn (Fairlee, Vt.); good for kids, too. In Rhode Island, check the Ocean House (Watch Hill); A-1.

Out on Cape Cod, you'll discover that The Belmont (West Harwich, Mass.) is a complete sandy beach hotel, with cuisine worth going for; and you'd find the Wianno Club (Wianno, Mass.) fine all around.

In the Pocono mountains of Pennsylvania, at least three first-rate resorts are still booking summer vacationers. The Inn at Buckhill Falls gives you a mountain green atmosphere; Pocono Manor Inn has an 18-hole golf course, and plenty of activity to keep teenagers occupied; and Shawnee Inn (Shawnee-on-Delaware, Pa.) has above-average golf, two heated swimming pools, and more than a touch of night life.

Moving south, you still may find the dates you want at The Greenbrier (White Sulphur Springs, W. Va.)—and if somehow you've missed this high-altitude resort, it offers three golf courses, almost every comfort you can think of. The Homestead (Hot Springs, Va.) is fashionable, with all sports from fishing to dancing; rural mountain locale.

PERSONAL BUSINESS (Continued)

BUSINESS WEEK
JUNE 18, 1960

In the Midwest, the **Grand Hotel** (Mackinac Island, Mich.) is probably the most notable oasis of its kind within hundreds of miles—it has de luxe comforts indoors and out; golf is top-rated.

Traveling West, **The A Bar A Ranch** (Encampment, Wyo.) has horses, swimming, tennis, mountains, and takes good care of children. Over at **The H F Bar Ranch** (Saddlestring, Wyo.), you live at the foot of the Big Horns, ride horses, and fish for trout. In Idaho, not too far away, **Sun Valley Lodge** offers a gracious atmosphere, golf, dancing, plus the rugged outdoors.

California resorts are less booked up this summer, too. A top place is **Del Monte Lodge** (Pebble Beach)—on the ocean facing the Santa Lucia Mountains in northern California, it offers access to four championship golf courses; posh. **Ahwahnee Hotel** (Yosemite National Park) has rustic atmosphere; **Feather River Inn** (Blairsden) is 60 miles northwest of Reno—it has giant pines, cool breezes, sports, and comfort.

Suggestion: Book no later than June 25.



Social Security for domestics is being "pushed" again by the IRS.

If, for any reason, a domestic in your household has been declining coverage, bear in mind that as the employer you're legally responsible.

If you pay a domestic at least \$50 in cash in a calendar quarter, you must pay a 3% Social Security tax on the earnings. The employee also pays 3%, making a total of 6%. Tax forms are available at any district Social Security office. You might want to request a copy of *Do You Have Household Help?*, a booklet which details the tax schedule and also contains a postcard on which you can indicate your wish to be on the mailing list to receive payment forms regularly.

The next payment is due July 31 (30 days after the end of the quarter).

Warning: If you fail to provide coverage for a domestic, you may have to pay the full 6% tax for the period in question—plus interest, and sometimes an added penalty.



Smoking: Citing studies showing a statistical relation between heavy cigarette smoking and death or illness from heart attacks, the American Heart Assn. reports that excessive smoking "may contribute to or accelerate the development of coronary heart diseases."


Death rates from heart attacks in middle-aged men were found to be 50% to 150% higher among heavy smokers than among non-smokers. AHA, however, says more research is needed before "proof" of the relationship is firmly established.

As for the risk of lung cancer, other recent studies reportedly show that reductions in both the yield of a cigarette's smoke condensate and the amount coming in contact with the lung reduce the risk. In American cigarettes, smoke condensate can vary from about 18 mg. per king-size, filter-tipped cigarette to about 40 mg. in a plain-tipped cigarette of the same size.



Is it income? How do you tell the difference between a tax-free gift and "taxable income?" The U.S. Supreme Court, in three long-awaited decisions, has refused to lay down cut-and-dried standards. **The implication: a good deal of leeway, on a case-to-case basis** (BW—Aug.15'59,p125).

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Freeport Sulphur's new operation seven miles out in the Gulf of Mexico taps the third biggest deposit discovered in U.S.

The world's first offshore sulphur mine, located 50 ft. under water in the Gulf of Mexico seven miles from Grand Isle, La., bubbled up its first buckets of melted brimstone for Freeport Sulphur Co. last week.

The mine—a spectacular \$30-million project based on a sprawling platform that stands on steel stilts in the gulf (pictures)—combines the best of the oil driller's and sulphur miner's arts to tap the third largest sulphur deposit ever discovered in the U.S. The sulphur lies in a limestone formation that fits like a skullcap over several hundred acres of a huge salt dome under the ocean floor. The sulphur formation is 400 ft. thick in some places.

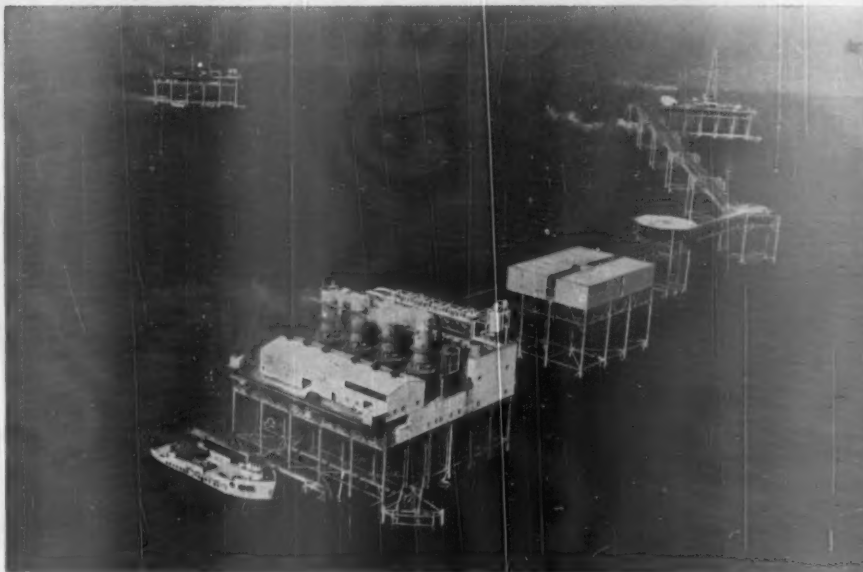
The ore body is so vast that Freeport has yet to map its boundaries on three sides. But geologists estimate the potential yield at more than 1.5-million tons of sulphur a year for perhaps 40 years.

- **Bringing It Up**—Mining sulphur is something like drilling for oil. But since sulphur is solid, it takes more than a hollow pipe and a pump to bring it to the surface. Freeport uses a method known as the Frasch process. This involves sinking three concentric pipes into the limestone, pumping superheated water down to melt the sulphur out at 325F, then blowing the sulphur to the surface with compressed air.

Hot water won't permeate limestone effectively for more than 200 ft. To get all the sulphur out, you have to drill a number of holes. In much the same way as they do it on shore, Freeport engineers drill into the formation directionally—using techniques developed by the oil and sulphur industries to the point that an expert can come within a few inches of a target half a mile away. With this kind of drilling skill, Freeport will be able to space bottom holes in a pattern of 175-ft. squares, with 108 holes drilled from 36 centers on only one platform.

The wells will fan out from each platform in the pattern shown in the picture. The outermost of them will hit the sulphur bed as far as 1,250 ft. out from the platform. At that distance, the drill bits will be cutting at an angle of 55 degrees from the vertical.

- **Freeport's Firsts**—The drilling pattern will be one of the most complex ever attempted. To do the job, Free-



OFFSHORE installation stands on stilts 60 ft. out of the water to avoid hurricane waves. Facilities include air-conditioned housing for workers, TV rooms, cafeteria—and a heliport.

MODEL of offshore mine shows how wells originating at platform will fan out to reach as far as 1,250 ft. so that up to 108 wells can be drilled and operated from one location.





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TECHNICAL PAPERS FOR INDUSTRY

186 Production

port had to come up with a number of firsts in mining and material handling:

- The offshore platforms are the largest structures ever built at sea.

- The heated and specially stressed pipeline that delivers molten sulphur to shore is the longest ever built.

- The mine is the second to operate far from a fresh water source. The first was Freeport's now depleted Bay Ste. Elaine mine.

- The operation is linked to the mainland by broad-band microwave—one of the first such systems to handle digital information for computers.

- **Toward Capacity**—As a starter, Freeport is working five wells. Within the month, they will reach the optimum underground operating temperature and produce 400 to 500 tons of sulphur a day. It will probably be several years before output climbs to the pipeline's capacity of 4,500 tons daily; the rate of increase will depend more on sulphur demand than on technical problems.

Sulphur is a basic raw material for making fertilizers, many chemicals, rubber, pulp and paper, paints and pigments, steel, gasoline, synthetic fibers, and a great variety of other products. Enough of it is used to amount to an annual 75 to 80 lb. per capita. As the anticipated population explosion booms production of items in which sulphur is used, Freeport expects its markets to boom, too.

- **Neglected at First**—Recently, however, the sulphur market has been soft. This explains why, though the mine was discovered in 1949 by Humble Oil & Refining Co. on its offshore leases, it was not exploited at first. In 1954, though, Humble drilled 10 holes in the area and hit sulphur on eight of them. Since Humble wasn't interested in the sulphur business itself, it approached Freeport, which already had three operating sulphur mines in southern Louisiana. In 1956, Freeport contracted to acquire the sulphur rights and build and operate a large mining layout in the gulf. Freeport pays the expenses and splits profits with Humble 50-50 after taxes.

Judging from Freeport's willingness to settle for half the profits in a highly competitive business, it looks as if the new mine is as attractive as the famous Boling Dome, which has already produced more than 50-million tons for Texas Gulf Sulphur Co., or Freeport's own Grande Ecaille mine, which has yielded more than 22-million tons so far.

- **Hurricane Trouble**—Eventually, the giant steel island will form a "Y" more than half a mile long. Right now, only one arm of the "Y" has been built.

Because the platform is well within an area known to offshore workers as "Hurricane Alley," some \$8-million of the \$30-million cost had to be allocated to

make it stand up to its surroundings. Since 1893, three hurricanes have passed directly over the site, and many others have grazed it.

Basically, the structure consists of a series of towers connected by 200-ft. bridge spans. The lower floor is 60 ft. above the water—high enough to miss the 45-ft. waves that a vicious hurricane might churn up. Since a wave of that size could smash against the pilings with a force of 1,375 lb. per sq. ft., new designs for bracing had to be developed. Engineers found that bracing near the surface of the water would be more effective than the higher braces used on many earlier offshore platforms.

Two sections of the platform contain a top deck reaching to approximately the height of a six-story building.

- **Heating Water**—The largest installation is the heating plant, shops, and warehouse units. The water plant can produce up to 5-million gal. of hot water a day—which qualifies it as the world's third biggest Frasch plant. Fueled by natural gas from two Humble offshore fields nearby, it contains four boilers, preheaters, air compressors, and turbo-generators.

The industry long thought that fresh water was essential to the Frasch process, but Freeport spent eight years developing a way to use salt water. The water's salinity has to be kept constant, and since sea water varies in saltiness, Freeport adds a brine in varying amounts. The brine is made from salt from the salt dome underneath the mine and relatively small amounts of fresh water piped from the shore. The insoluble chemicals in sea water are mechanically stripped out to prevent caking inside the pipes.

Probably the toughest engineering problem was to deliver the molten sulphur to Port Sulphur, 50 miles away. Barges and tugs were impractical because of vagaries of weather. Freeport solved the problem with the seven-mile pipeline to the mainland, built of special steel and specially stressed to withstand the expansion that results from carrying sulphur at 300F.

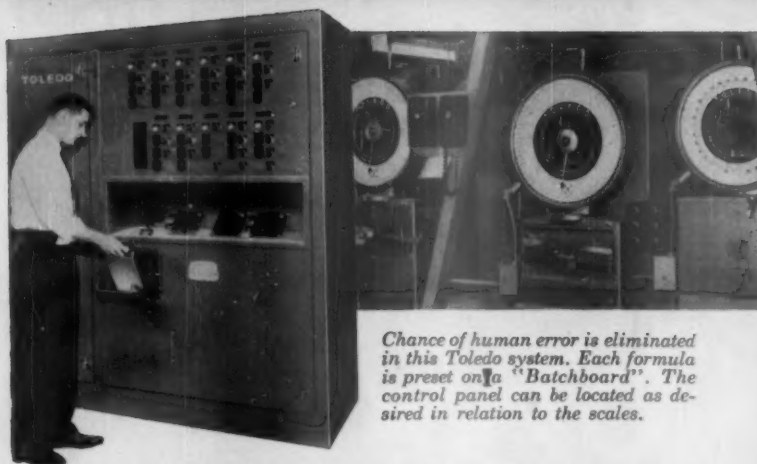
- **Automation's Role**—Automation plays a part in the new layout, too. Freeport thinks the operation is the most highly automated sulphur mine anywhere. The microwave system beams daily time cards, operating statistics, messages, and other data to company offices in New Orleans with the help of IBM Transceivers, which translate data on punch cards into tones that can be transmitted (BW—Jun.11'60,p84). The information is processed by computer in New Orleans. A microwave radio phone system links all operations.

Only 75 men are needed on the platform at any one time. They travel back and forth from shore by helicopter. **END**

BUSINESS WEEK • June 18, 1960

TOLEDO Reports on Automatic Weighing

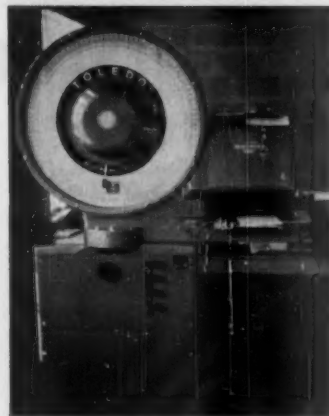
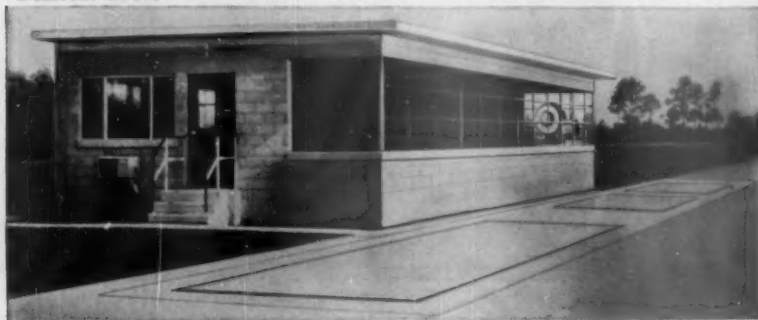
**New Ideas For Cost-Saving*



Chance of human error is eliminated in this Toledo system. Each formula is preset on a "Batchboard". The control panel can be located as desired in relation to the scales.

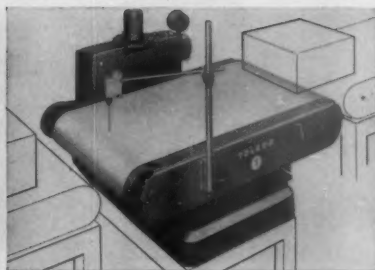
Controls Batching Automatically At Remote Stations

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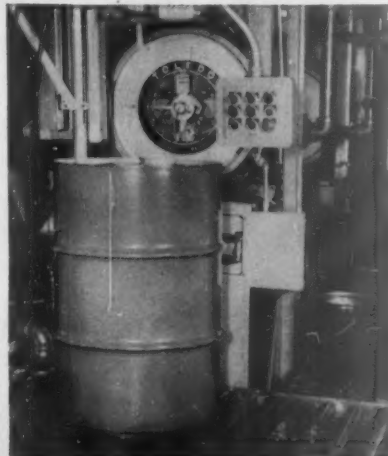
Load Cell Dial Does Triple Duty ... Also Printweigh Recording

One remote dial serves *three* platforms in this Toledo Electronic Load Cell Scale for truck weighing at a large cement plant. With a truck on three platforms, scale reads individual axle loads or total weight. Equipped with Printweigh "400" to print full figure weight data. Brings new versatility to weighing. Request Bulletin 2970.



Checkweighs In-Motion

Many plants today are putting Toledo Automatic Checkweighers into their conveyor lines. Models to provide continuous, 100% in-line checkweighing of items from a few ounces to 200 pounds. Motorized belt. Handle sacks, cartons, packages, pieces, parts. Ask for Bulletin 2968.



Automates Drum-Filling

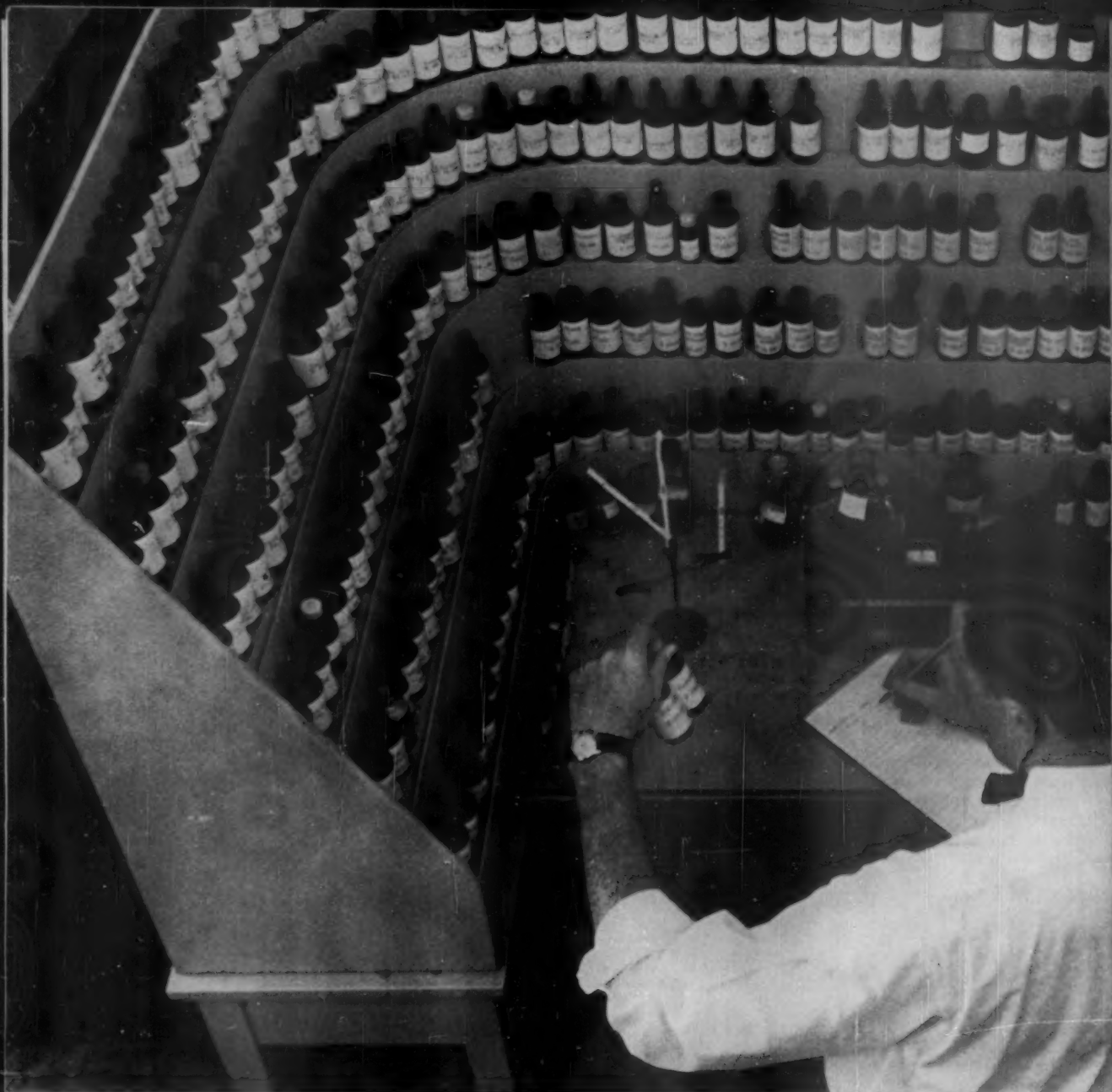
In this oil industry plant, a Toledo sub-surface filler automatically eliminates foaming and controls drum filling. The scale is keyed into conveyORIZED system . . . provides faster, more accurate filling. Saves time, labor, avoids loss of material and customer goodwill. One of many operations where Toledo controls guard costs. Ask for Bulletin 9030.

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HUNDREDS of aromatic chemicals—each of these bottles contains one—are studied to find right combination to kill a bad industrial odor.

How to Turn Factory Smells Into

Air pollution is getting to be one of U.S. industry's more ticklish public relations problems. The Los Angeles smog belt perhaps presents the issue in its most concentrated geographic form. But next to that, the greatest controversy arises from the wide variety of nose-ruffling industrial smells that waft their way across highways, residential areas, and shopping centers.

The trouble with odors, however, is that no one really knows what makes them. So controlling them is doubly

hard. One of the oldest ways, now enjoying its first industrial boom, is to turn to the perfumer's art on a grand scale and attempt to blend out the unwanted smell.

• **Practitioners**—A leading reviver of this ancient art is Rhodia, Inc., of New Brunswick, N. J., a subsidiary of the French chemical company, Rhone-Poulenc. One of the principal producers of aromatic chemicals, Rhodia is now moving increasingly into the specialized field of industrial odor control.

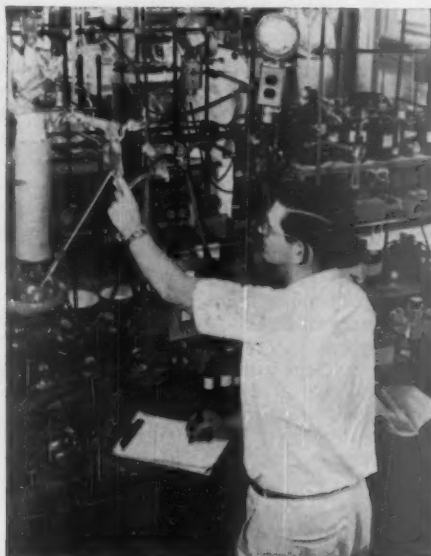
Rhodia sees almost unlimited possibilities in odor control—currently growing at a rate better than 20% a year—as U.S. olfactory nerves get more and more finicky.

Another leading practitioner in the field is Airkem, Inc., of New York. A number of smaller companies round out the industry roster.

Sales figures in this new field are still pretty sketchy, but it's sure that the chemicals already being sold annually to control plant smells, both inside the



ODOR EXPERT, Dr. Walter C. Meuly, of Rhodia, Inc., shows what odor looks like; molecule is of astrotone, with an odor similar to deer musk.



LAB TEST of physical properties of an Alamask, or odor-masking chemical, is run by technician in one of Rhodia's five labs in its New Jersey plant.

a Whiff of Roses

plant and outside, run well over \$5-million.

• **Tryouts**—In most cases, the people affected are probably unaware that control chemicals are being used to allay their grievances. If, however, you should pass downwind of a refinery that doesn't seem to smell so bad as it did, the chances are it's using these masking agents.

One Midwestern refinery took to the use of specially concocted masking chemicals in an effort to head off a law-

suit aimed at forcing it to shut down some of its more odoriferous processing units.

Fear of a possible public clamor arising from a changeover now under way from trolley buses to the diesel-powered variety started the Cleveland Transit System on an odor-killing hunt. For some months it has been testing out special chemical additives to mask the annoying diesel fumes. First reports seem to indicate that these do reduce the irritation of diesel smog—and with-

out any harmful effect on the engines. Both Rhodia and one of the smaller practitioners of the industrial perfumer's art, Sindar Corp. of New York, have furnished the additives that were used for this test.

Another successful trial was carried through by Champion Paper & Fibre Co., which used other neutralizing agents, or counteractants, to reduce the strength of sulphurous fumes that were coming from its North Carolina paper pulp plants.

• **Not So Simple**—In concept, the blending out of obnoxious odors—much as two colors are blended to create an entirely distinct third color—seems simple. But with odors, finding the right blending agent—the counteractant—can

... the masking agent must be a matching blend of aromatic chemicals, each one matching the boiling rate of the smelly chemical it is picked to neutralize ...

(STORY on page 188)

be a long and frustrating trial-and-error search.

The object, of course, is to create a new, more or less neutral odor that nobody will mind too much—for Americans, says a Rhodia spokesman, don't like to be reminded of unpleasant things. So the best kind of masking odor is a vague, clean industrial smell that barely makes its presence known. That's the exact opposite of the perfumer's aim, which is to concoct an odor that is both highly noticeable and alluring.

In practice, blending out a first-rank industrial stink is anything but simple. That's because very little is known about the mechanics of the sense of smell—how the human nose works, or what makes some smells pleasant, some offensive.

Most authorities lean toward the idea that incoming odors irritate, either electrically or chemically, highly sensitive nerve endings in the nose; and these flash a pleasant or unpleasant signal to the brain, depending on the kind of stimulation. There are no instruments as yet for measuring odors, though leading instrument makers are working to develop them.

As a result, the masking out of objectionable industrial odors is not a science but a highly specialized art. Odor control specialists must be equipped with long and sensitive noses, a chemical inquisitiveness for the concocting of new smells, and a long memory for what goes into various odors.

• **Part of Whole**—Odor control is, of course, only one part of the air pollution picture. Some air pollution problems are strictly odor; some are caused mostly by minute particles or traces of chemicals in the air; others are a bit of everything.

Some odor problems are being solved along with the over-all air pollution problem by means of collectors and scrubbers. But these are expensive—\$50,000 to \$100,000 even for smaller installations. And, according to Rhodia officials, there's no guarantee they will get rid of the odors, so that an effort to mask out the smells remains the best answer in many cases.

Efforts are also being made to develop catalytic type chemicals that will cause the odor-bearing vapors to break down and thereby destroy themselves. Little is known about how this is done, so, though everybody is working along these lines, the companies involved are

reluctant to discuss it at the present time.

It's not only smell-ridden towns near industrial plants that raise a hue and cry. Workers and consumers, too, are becoming more odor-conscious. Manufacturers often have to clean up in-plant smells to keep workers on the job. An Eastern wire and cable manufacturer, for example, got bitter complaints about the extreme odors emanating from some of its wire-coating machines. It stilled the clamor by mixing in a masking agent in the synthetic insulating material. Other manufacturers are learning that customers shy away more and more from synthetic rubber and plastic items that have a strong chemical smell. Most liquid detergents also have to be deodorized.

• **The "Long Noses"**—In developing agents to mask strong and unpleasant odors, Rhodia relies heavily on its know-how in aromatic chemicals. Rhodia's Alamask Div., which concocts the masking agents, actually accounts for only 17% to 25% of total sales. The company also produces the aromatic chemicals, as well as perfumer's compounds and flavors, and licenses out the chemical know-how of its French parent to U.S. companies.

Rhodia's other prime asset in its odor-killing battle is the keen, highly trained sense of smell of its odor specialists—the "long noses," as they are commonly known.

When the long noses tackle a problem, their first job is to try to figure out how strong the obnoxious odor really is. This is a lengthy process. They vary the concentration of the substance by diluting it with water, then sniff each concentration successively until they hit on the one that is strong enough to be perceptible. By thus gauging the odor's strength, they are able to choose a chemical agent of comparable power that will neutralize or mask it.

• **Matching Up**—Next step is to break down the over-all stink into the various chemical ingredients making it up. This requires a sensitive nose with a long memory for all the many "notes" of a really bad smell. A first-rank industrial odor may be a blend of many industrial components—and each of these may boil at a different rate.

The masking agent must be a matching blend of aromatic chemicals—each one matching the boiling rate of the smelly chemical it is picked to neutral-

ize. Otherwise, some of these aromatic agents might stick around after the odor ingredients they were designed to mask had been completely dissipated. Then they might combine with some of the less volatile odor ingredients—and create an even worse stink.

Each of the masking ingredients must also meet definite requirements as to stability and solubility.

• **What's in a Smell**—Most fragrant smells are highly complex. The odor of roses is made up of 20 or more ingredients, and 35 or more go into the whiff of coffee from the breakfast table. Unpleasant odors, on the other hand, tend to be rather simple. In fact, that may be why we don't like them: As one Rhodia researcher phrases it, "Our noses are rather spoiled and have become accustomed to nice, rounded-out odors."

This means that most masking agents are of a complex type—from 17 ingredients up. There's one shortcut, though; in many cases, the same type of agent can be used to mask different offending smells because these bad odors are of the same basic type.

Odors emanating from breweries, suture manufacturing operations, and oil-filled quenching pits, for example, can be counteracted by the same general type of masking agent—though it's safer to check each case out by careful lab tests.

Such shortcuts aren't always possible, however. Sometimes the "long noses" have to work through their entire basic kit of 600 to 700 ingredients to concoct a completely new neutralizer.

• **Only Relative**—Not all objectionable odors can be effectively masked out, Rhodia officials are quick to point out. High temperatures and the presence of strong acids tend to destroy the effectiveness of masking agents.

In the end, too, success in odor control can be only relative—since there's no scientific way of measuring how bad an odor is. One standard way of judging results is through the vote of a carefully selected panel. Another is a public opinion sampling. In one Southern mill town, such a sampling produced this consensus: "This place sure was smelly, but now it's better."

• **Cost**—The cost of such chemical treatments is not high, however, so even relative improvements may be worth the expense. For a medium-sized rubber processing plant, for example, cost of control chemicals would run only to about \$15,000 a year—since as little as one to two parts per million of a Rhodia product will counteract the skunklike odor of burnt rubber. The cost of "reodorizing"—as the industry phrase has it—such paper products as container board, gummed tape, and coated papers comes to a total of less than 1¢ per lb. **END**

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Employee Gift Matching

Another Good Way To Help Our Colleges And Universities

The business community continues to make an impressive record in giving badly needed financial help to our colleges and universities. This year the Council for Financial Aid to Education expects that business contributions to higher education will be well over four times their total of about \$40 million a decade ago.

If these contributions, which were about \$150 million last year, continue to increase at the present rate, they will hit the target of \$500 million set for business aid to our colleges and universities in 1970. This is the amount which, the Council calculates, must come from business if these institutions are to have the money to do their job properly a decade hence.

However, it would be a fine thing both for the nation and the business community if that \$500 million dollar target were hit well before 1970. This would put us ahead of a schedule (it is a conservative schedule) in getting on top of what remains one of the nation's most crucial problems—that of having its colleges and universities adequately financed which they are very far from being right now.

There is, we believe, one quite simple way by which financial support for higher education by business firms might be considerably speeded up. All that is required is that business firms generally abandon the idea that it is possible for every company to have a program to provide such support that is novel and distinctive, and that this is the only way that interests of prestige and good public relations can be served.

There are nowhere near enough good plans to provide financial help for higher education to equip even a small percentage of our business firms with one that is novel and distinctive. Also there are a number of very good plans which, so far as we can tell, lose nothing of their value for prestige and good public relations by being used by a large number of companies.

The Gift Matching Idea

One plan with these attractive characteristics is the plan by which companies match the gifts of their employees to colleges and universities, and now increasingly gifts to independent secondary schools. So far as we can discover the general plan was invented by the General Electric Company, with what it calls its Corporate Alumnus Program. Now, with variations on the same basic design, almost 100 companies have gift matching plans. We at McGraw-Hill are included in this number.

The gift matching plans vary considerably in detail. Some are limited to alumni of the schools to be benefited. In others any employee can participate by making a gift to an eligible institution. There are also variations in the maximum amounts of gifts by individuals and to individual institutions which will be matched. Some companies have "open end" plans; others limit the total to be matched in any one year. All of the plans, however, embody the same central gift matching idea.

When the plan was first launched some college administrators of little faith in the fundamental generosity of the alumni and friends of their schools expressed the fear that if gifts were to be matched they might be made smaller in the first place. The opposing view was that the possibility of having them matched would stimulate more and larger gifts.

Advantages Of Gift Matching

So far as we have been able to discover, the expectation that giving would be stimulated by gift matching has been validated by the experience with the plans. This has been our experience at McGraw-Hill. Some other important virtues of the gift matching programs have been summarized by

**LEADERS OF SOME OF THE INSTITUTIONS
WHICH HAVE SHARED IN THE MCGRAW-HILL EMPLOYEE
GIFT MATCHING PROGRAM EXPRESS THEIR VIEWS**

"We particularly appreciate the fact that your grant is unrestricted, and can therefore be used for our area of greatest continuing need — the General Education Fund, from which faculty salaries come."

W. BOYD ALEXANDER, Vice President and
Dean of the Faculty
Antioch College

"We are grateful, not only for the financial support given to The Cooper Union by your company, but also for the stimulus it has provided our alumni in your employ to make annual gifts to their Alma Mater."

EDWIN S. BURDELL, President
The Cooper Union

"The gift matching program has a dual advantage. First, it acknowledges and repays a debt of honor to those colleges which, often at great loss to themselves, have trained and educated the men who are now among your personnel. This is most fair and equitable. Secondly, by offering to match up to a given limit the contributions of alumni, you encourage support of their own colleges on the part of graduates, who themselves are so indebted."

President EDWARD B. BUNN, S. J.
Georgetown University

"Thanks to your doubling of the annual gifts of one of our generous and loyal friends who works with you at McGraw-Hill, we are well on the way toward creating what for us will be an extremely helpful scholarship fund. This would not have been possible without the gift matching program."

C. ADRIAN HEATON, President
California Baptist Theological Seminary

Ernest T. Stewart, Executive Director of the American Alumni Council (1785 Massachusetts Avenue, N.W., Washington, D.C.) who would be glad to provide detailed information about them, and the names of companies having such plans. Of the gift matching idea he says,

"First—it assures the corporation that its gifts go direct to those colleges and universities which have furnished it with trained manpower.

"Second—it places responsibilities for the gifts on the institutions themselves and drives home the point that they must make a real effort with their own alumni.

"Third—it leaves the final decision of corporate support basically to the employees."

For many companies which are fearful of complicating their relations with their customers by courting charges of favoritism if they provide direct financial support for any particular school or group of schools, this latter consideration can be of decisive importance.

The gift matching plan also has what for many companies is the very important virtue of being simply and easily administered. Some additional virtues of the gift matching plan, as seen by officers of institutions which have been beneficiaries, are indicated in the box at the top of this page.

Effective And Easily Managed

We at McGraw-Hill are well pleased with our gift matching program. It is a broad program in which all employees and a wide array of colleges and universities, both privately and publicly supported, are eligible to participate. We commend it as an effective and

easily managed plan to provide urgently needed financial aid to higher education.

We also urge that business firms adopt this or one of a number of other very good programs of financial aid to higher education* rather than delay in the hope of hitting upon some quite new and distinctive plan. There are very long odds that such delay will prove unavailing. In the meantime our colleges will be losing financial help which it is profoundly in the interest of the business community and the nation to see that they get—and get fast.

*An earlier editorial in this series dealt with tuition supplements as another good way to help our colleges and universities. Reprints of this editorial are available. So are copies of a "more or less socratic dialog," entitled, **A Business Wrestling with the Problem of Aid to Colleges and Universities.** It was prompted by the efforts of McGraw-Hill to find suitable methods of providing financial aid to higher education.

This message is one of a series prepared by the McGraw-Hill Department of Economics to help increase public knowledge and understanding of important nation-wide developments. Permission is freely extended to newspapers, groups or individuals to quote or reprint all or parts of the text.

Donald C. McGraw
PRESIDENT

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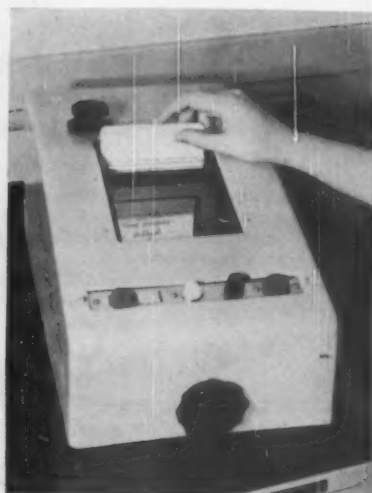
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NEW PRODUCTS



Garbled Signatures for Banks

For passbooks and credit cards, Autho-Visor system puts signatures into code by distorting them optically (picture, left), decodes them in reading device (picture, right).

There's an optically scrambled signature on the identification card in the lefthand picture, and it can't be decoded except by a special reading device (picture, above right). It's part of the Autho-Visor system, devised by LeFebure Corp., a subsidiary of Craig Systems, Inc., of Lawrence, Mass., for banks, credit card businesses, charge account managers, and perhaps military security officers.

Banks are first customers for the system. Three savings banks—Howard Savings Institution of Newark, N. J., Union Dime Savings Bank of New York, and the Provident Institution for Savings in Boston—have contracted for \$250,000 worth of Autho-Visor equipment.

• **Faster Service**—The system eliminates the need for a teller to go to a central file and compare the signature on a withdrawal slip with the signature on the file card. Thus it will save extra minutes for customers waiting in line.

With Autho-Visor, a cabinet-sized encoding machine photographs the customer's signature through a screen that optically scrambles it. This garbled signature is mounted in the passbook. It can't be seen by would-be forgers who might steal the passbook or find it on the street, but when it is viewed by the teller through the reading device at his post, it instantly verifies the customer's signature on a withdrawal slip.

Moreover, since signatures don't have to be verified through a central file of

signature cards, a customer will be able to make withdrawals freely through any branch of a bank that uses the system.

• **Going Into Service**—Howard Savings Institution, which will have its installation in use next fall, will have a total of 35 readers and six encoders at its main office and its branches. Union Dime Savings plans to start next winter with 23 readers and two encoders.

Provident of Boston intends to do away with passbooks altogether. Its customers will carry only the identification card bearing the mixed-up signature. Each withdrawal or deposit will be recorded on a slip of paper that also states the current balance in the account.

• **Wider Uses**—LeFebure Corp. foresees \$1-million in Autho-Visor sales in the next 12 months. Besides seeking a broader market among banks, the company will be trying to convince credit managers of the advantages of speed and security with the new system. The Defense Dept., a company spokesman says, has already shown interest in the scrambled-signature identification card for personnel in tight-security plants.

LeFebure offers customers a complete systems study, installation and servicing of equipment, conversion of present signature files, and supplies of special passbooks that will fit the reading devices. Autho-Visor encoders are priced at \$3,500 each; readers, \$425 each.

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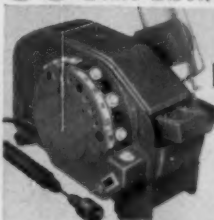
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91% of Business Week's subscribers hold
management positions in business and industry.

Dry and Alkaline

Mallory Battery Co. Div. of P. R. Mallory & Co., Inc., has started volume production of a new kind of dry cell for flashlights, photoflash, and portable radios. Right now, only a penlite size is being made; it sells for 50¢, which is about twice the price of a conventional battery of the same size.

Mallory says, however, that the new battery should last up to eight times as long as the conventional cell. It has a specially designed zinc anode and uses an alkaline (potassium hydroxide) instead of an acid as the electrolyte. The cell is doubly sealed to prevent the electrolyte from drying out.

For Remote Control

General Electric Co. has developed remote control equipment that uses transistors in place of the usual mechanical relays. It's designed for remote control, from a central point, of unattended equipment such as electric utility substations, pipeline pumping stations, and chemical process plants. It can also be used to monitor irrigation systems or industrial lighting and air-conditioning systems.

The control equipment operates on any two-way communications channel, uses a self-contained 12-volt power supply. It has no moving parts, so it needs no adjustment in the field.

NEW PRODUCTS BRIEFS

Tubular netting extruded directly from polymers is the result of a new process developed by du Pont's film department. The company claims that the product is stronger than plastic netting where the net pattern is formed after the material is extruded. Called Vexar, it can be made into anything from fish nets to chemical filters.

A do-it-yourself glassblowing kit of professional quality for physicists, chemists, and engineers is being marketed by Bethlehem Apparatus Co., Hellertown, Pa. According to the company, specially designed tools simplify many steps—thus a novice can easily learn to construct complicated pieces of glass equipment. Kit, with asbestos working board, costs \$246.

A data processing system on wheels is being built for a leading petroleum producer by Hagan Chemicals & Controls, Inc. The computer is housed in a trailer that contains the power supply, and can be transported from plant to plant for rapid checks of start-up performance and other calculations. Cost is about \$100,000.



ACME VISIBLE EARNS 35% RETURN ON ITS CARRIER AIR CONDITIONING INVESTMENT

Acme Visible Records, Inc., of Crozet, Virginia, is the world's largest manufacturer of visible records systems. And because it is also one of the fastest-growing, the need for increased production is a continuing problem.

Ten years ago the company believed it had found a solution. Facilities were moved from Chicago into a new plant in the Shenandoah country. But the gain was short-lived. A few years later sales again were pushing capacity.

This time management decided that an increase in the productivity of its 500 workers might accomplish as much as further plant expansion. So a Carrier air conditioning system was installed in 1957. Results have far exceeded the most optimistic hope.

The increase in Acme work output

during summer months has been so great that annual production was boosted 6.6%—over four times the 1.5% increase normally required to make air conditioning pay off. And the return on the investment has been even more spectacular.

According to Acme, its air conditioning is earning a 35% annual return—or enough to pay back the cost of the system in less than three years!

There have been other production bonuses, too. Humidity control has eliminated paper stock edge curl. There is less rusting of unfinished metal sheets. And bonded wood-and-paper products—once made in winter only—can be produced year round.

Many other manufacturers report that Carrier year-round air condition-

ing is paying similar dividends which, significantly, do not vary greatly as the result of geographical location or the type of products manufactured.

The most important of several factors that determine the profitability of industrial air conditioning is the density of workers in a plant or plant area. Where the number of square feet per worker is low, the return on the air conditioning investment will invariably be high.

There are other yardsticks, too—all described in the booklet, "Will factory air conditioning pay off for me?" which we will send to you without obligation. Write for this booklet today. You'll find it helpful. Carrier Corporation, Syracuse, New York. In Canada: Carrier Engineering Ltd., Toronto.

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carload
of fun!



**RUNS AND HANDLES...
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This little 68 inch car is sturdily built. It has mechanical brakes... red wooden spoked wheels... brass colored headlamps. Speeds up to 15 miles per hour. Thrills galore for the whole family.



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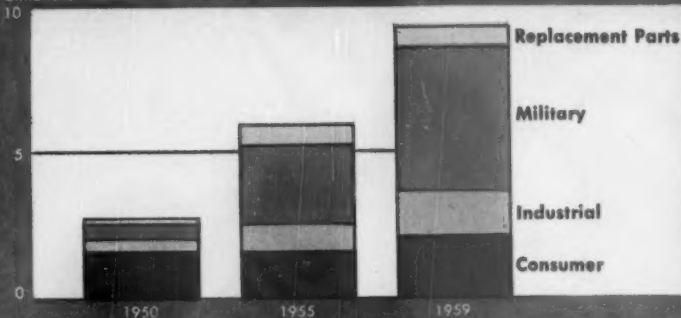
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CHARTS OF THE WEEK

Factory Sales of Electronic Products

Billions of Dollars



Data: Business & Defense Services Adm. Bureau of the Census; Electronic Industries Assn.

BUSINESS WEEK

Electronics Sales Light Up the Sky

The 1950-59 decade marked a period of spectacular growth for the electronics industry. During the period, factory sales of electronic products multiplied $3\frac{1}{2}$ times, sales to military markets increased almost tenfold, and industrial purchases quadrupled.

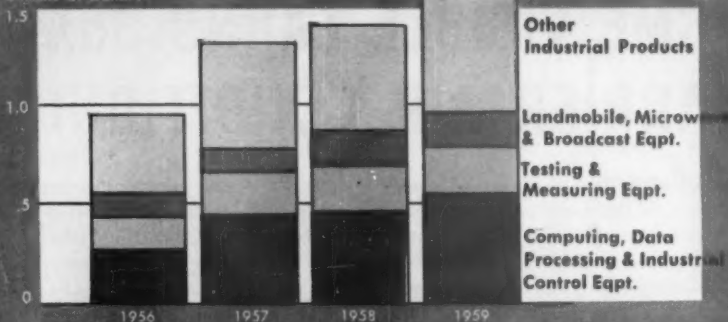
Rising missile expenditures and the greater electronic content of military equipment are prime factors in the

steady expansion of the military market. Military sales during 1959 are estimated at \$4.7-billion, more than half of total factory sales of electronic products.

During the Sixties, the application of space-age technology to electronics production is expected to open vast new markets in weather detection, navigation and worldwide communications.

Factory Sales of Industrial Electronic Products

Billions of Dollars



Data: Electronic Industries Assn.

BUSINESS WEEK

Industry's Appetite Is Growing

Electronic methods have revolutionized American industry during the past decade, and developed markets for some \$1.6-billion in industrial equipment during 1959.

The industrial market includes not only the earlier products such as broadcast equipment, two-way radios, test instruments, and navigational aids, but also a myriad of other devices that

measure and count, process and control, and solve problems for scientists and engineers.

The most rapid market growth has occurred in computers, data processing, and industrial controls. Six years ago, they accounted for slightly over \$100-million in annual sales, or about one-sixth of the total industrial electronics market. Last year, they sold at an an-

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for water, drainage
and sewer facilities*



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PRECAST CONCRETE PIPE

American-Marietta precast concrete pipe, produced in strategically located plants throughout the United States and in Canada, is fulfilling the growing sewage disposal requirements of municipalities everywhere. With the growth of residential, industrial and commercial construction in outlying areas, new interconnecting roads and highways require miles of concrete pipe for proper drainage.

Through a continuous program of research and product development, American-Marietta is producing precast concrete pipe offering greater

efficiencies, improved durability and substantial savings in construction time. Exclusive developments include Flat-Base Pipe, elliptical Lo-Hed, Hi-Hed and Inner Circles Pipe—each with special advantages.

Engineered in many sizes and designs for specific construction requirements, A-M precast concrete pipe is achieving greater importance each year. As the nation's growth continues, American-Marietta is expanding its production capacity to meet the increasing demand.

The startling dimensions of America's economic growth and expanding markets have been projected in a special report, "The Years Ahead: 1960 To 1975." The significant conclusions of this professional study have far-reaching implications for every thoughtful executive. You are invited to send for a copy. Address Department YA, American-Marietta Company, Chicago 11, Illinois.

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Chicago 11, Illinois



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Right now, to name a few of their critical assignments, Aldrich pumps are handling:

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Obviously, Aldrich service is as dependable as our Aldrich pumps. We stock parts for every standard pump we build, and get them to customers fast, even to putting them on a jet with a service man. You will find a quick listing of our line in *Chemical Engineering Catalog*. For complete data, or help on a specific pumping problem, write us direct. Aldrich Pump Company, 10 Gordon Street, Allentown, Penna.

The tough pumping problems go to

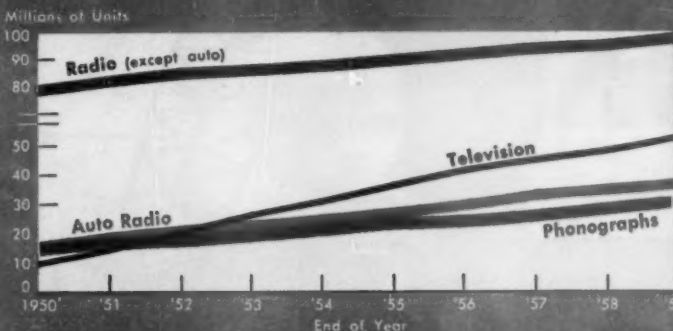


nual rate of \$525-million and comprised one-third of the market.

New markets have evolved from the use of electronic medical and therapeutic devices. X-ray systems still account

for the major share of the medical market, but increasing use of electronic diathermy units, ultrasonics, closed-circuit TV, and many other devices have added considerable impetus to medical sales.

Number of Entertainment Sets in Use



Data: Electronic Industries Assn., Electrical Merchandising Week

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More Entertainment in Home

Ten years ago, television sets were used in only 10.6-million American homes; today there are well over 53-million in use in close to 90% of total wired homes. Almost 6-million were sold in 1959 alone.

Radio has been around a lot longer, but it too has enjoyed a healthy growth in the past decade. Total sets in use,

including auto radios, rose from 99-million in 1950 to 138-million in 1959. Radios are in more than 96% of wired homes, and in 76% of automobiles.

The advent of stereo and hi-fi has generated considerable consumer interest in phonographs. As of Jan. 1, 1960, more than 64% of wired homes boasted a record player.

Sales of Phonograph Records



Data: Record Industry Assn. of America

©BUSINESS WEEK

Records Make a Big Spurt

From 1901 when the disk record replaced the cylinder, the recording industry has grown rapidly. It experienced a brief decline in the mid-1920's when radio grabbed the spotlight, and again in the Depression-ridden early 1930s. But by 1934, thanks to revived interest in big-name bands and the expansion of the juke box business, the record industry staged a strong comeback and has been thriving ever since.

By the end of 1959, factory sales of phonograph records totaled \$230-million, with the 189-million records sold retailing at \$484-million. Stereo records accounted for about 10% of unit volume and 20% of the dollar volume of factory sales. The market for monaural records will remain large however, because of the greater proportion of monaural phonographs (28-million) in use compared with stereo sets (4-million).



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Will Mergers Help the Railroads?

Railroad men for 40 years have believed that the industry would see a series of mergers that would result in two or three big systems in the East. For 40 years the talk has bubbled, but little has happened. Now the plans are suddenly beginning to steam (page 31).

In Cleveland this week the Chesapeake & Ohio mailed Baltimore & Ohio stockholders an offer to acquire control of the B&O. At the same time, directors of Norfolk & Western and the Nickel Plate agreed to merge the two companies.

The New York Central, which had been interested in merger talks with the C&O and B&O, moved two ways—almost at once. First it asked ICC to hold up all mergers and make a study—then it indicated it might have an offer to make B&O itself.

One immediate result is that the Interstate Commerce Commission in Washington is going to have to make a series of decisions on mergers that may reshape the structure of the industry.

What the ICC needs, we suspect, is thought and not volumes of studies. The essential question in most applications for mergers is the quality of the management that can be brought to the system. There is no evidence at all that merely adding size—piling new railroads on top of the giants—will strengthen a railroad. There is no evidence that reducing the entire web of Eastern railroads to two or three giant systems would improve the railroads. Even in a merger of two small railroads, the benefits of eliminating some duplicate facilities may do no more than conceal the basic weaknesses of the system for a few years.

But the railroads do have great possibilities. They might see their traffic rise sharply—simply as the U. S. economy grows and the highways become congested. They can make no end of improvements to their own systems, if they can finance them. They have in such developments as computers and microwave systems the tools they need vastly to improve operations.

The real question is how to find the men to make these giant properties roll. Studies are not likely to do it. Mergers, especially among the smaller systems, might help. We hope the ICC will find other ways to encourage better management.

Showing Their Stuff

British industry has spread a lavish display of its wares at New York's Coliseum in a strong bid to boost its share of both consumer and industry sales in the U. S.

This biggest of British exhibitions, with some truly fine touches and exciting products, is just a

sample of the kind of competition in domestic and world markets that American businessmen face. Next week the Chicago International Trade Fair opens, with exhibitors including some Iron Curtain countries.

There's nothing short-run about these efforts. Britain and other countries declare they are in for the long pull in their export programs. They've learned how to tap U. S. markets with quality products and competitive prices. Now they are determined to keep what they have and get more by diversification and deeper penetration of markets in all parts of the U. S.

This is a real challenge to American business, but nevertheless a healthy one.

Aid for School Building

Once again, Congress seems to have worked itself into a stalemate on the question of federal aid for school construction. This is a source of evident satisfaction to those—such as Rep. Charles Halleck (R-Ind.)—who oppose federal help for the public schools in any shape or form. It can be nothing but a disappointment to anyone else.

Both houses of Congress have now passed bills to make federal money available for school building. But neither bill has a ghost of a chance of becoming law in its present form.

The Senate bill would provide \$1.8-billion over a two-year period, part of it going for building and part to pay teacher salaries. If sent to the White House, this would draw a certain veto because the Administration already has taken a strong stand against using federal money for teacher salaries.

The House bill would be acceptable to the Administration in most respects. It would provide \$1.3-billion over four years for school construction only. But the House bill contains the so-called Powell amendment barring any aid to racially segregated schools. As long as that clause stays in, Southern senators will see that the bill never passes.

There is room for a wide range of opinions as to just what an ideal bill would provide. But with adjournment closing in, this is a time to deal in realities. The important thing is to get a bill that both Congress and the White House can accept.

The House-Senate conference committee should now draft a compromise that will put a minimum program of federal construction aid into effect promptly—and do no more than that. A majority of both houses agrees that federal aid for school construction is vitally needed. It makes no sense to let the whole program die by taking an all-or-nothing stand at this point.



Libby, McNeill & Libby solved a series of operating problems in its Hawaiian pineapple cannery with products of Shell Research.

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